

Story and Pictures of Michigan Sheet Metal Convention

American Artisan and Hardware Record

[Sheet Metal - Roofing - Warm Air Furnaces - Stores]

Vol. 91, No. 10

CHICAGO, MARCH 6, 1926.

\$2.00 Per Year

The New
and Greater

20-40 D

Model

PENINSULAR FURNACE

is taking the trade by car-
loads—its quality, its fea-
tures tell a story of sales
you can't overlook unless
you want to pass up a
good thing for your cus-
tomers and a money maker
for yourself.



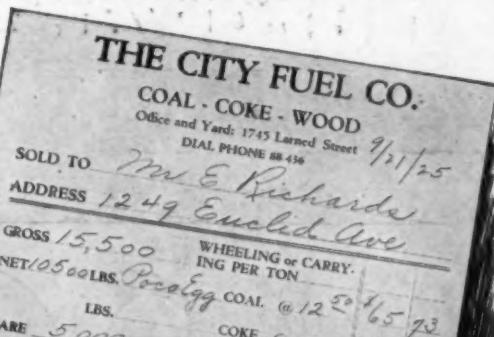
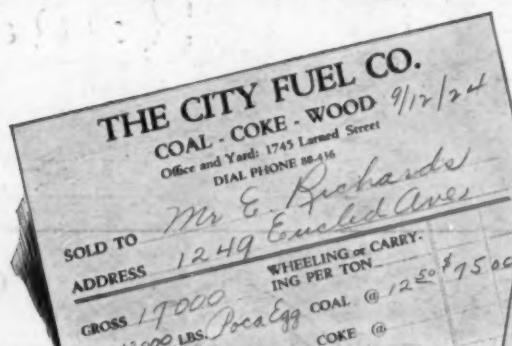
This Furnace is a Super Heater

and
here are
the reasons
why

1. Square ash pit—ashes easily removed.
2. Duplex Grate with outside shaker—don't have to open ash pit door to shake furnace, may be done in a standing position, easy to keep ashes away from outside of fire.
3. Very large flanges on fire-pots to allow plenty of room for expansion and contraction.
4. Opening at top of feed section is as large as both sides of radiator making for wonderful combustion.
5. To clean out furnace simply lift off clean-out door and insert brush. The bottom of radiator is practically flush with bottom of cleanout.
6. Very large double feed door.
7. Space for air passage between radiator and feed section very large. This is the main reason why it is a super heater.

The PENINSULAR STOVE CO.
DETROIT CHICAGO

Each Year Selling Homers Meets Less Resistance



Capacity 30,000 Furnaces Annually

A CONVINCING SALES ARGUMENT

The fact that "Harmony in Homer Heated Homes" is largely due to the fuel economy which is enjoyed by users everywhere, is sufficient argument why Homer Furnaces are going to be distributed in your community by some progressive dealer. Then, too, the perfect heat distribution has caused thousands to become silent advertisers for this super heating plant.

Ask about our sales and Homer time payment plans and how they are going to create a demand in your community. It is indeed a welcome note to our dealers to know that we handle our own paper on our "year to pay" plan which invariably will stimulate furnace sales very materially.

HOMER FURNACE CO., Coldwater, Mich., U. S. A.

HOMER FURNACE CO., PORTLAND, ORE., Pacific Coast Distributors
THE CINCINNATI SHEET METAL & ROOFING CO., CINCINNATI, OHIO, Southern Distributors

JANNEY, SEMPLE, HILL & CO., MINNEAPOLIS, MINN., Northwestern Distributors

M. A. KARP & SON, 183—6th Ave., NEW YORK, N. Y., Eastern Distributors

MILWAUKEE STOVE & FURNACE REPAIR CO., MILWAUKEE, Wis., Eastern Wisconsin Distributors

SKINNER MACHINERY COMPANY, DUNEDIN, FLA., Florida Distributors

There's
Harmony
in
Homer
Heated
Homes

New "RUDY GIANT"



Can be used
with or without
fan

SOLVES THE HEATING PROBLEM

for CHURCHES, SCHOOLS, LARGE RESIDENCES, HALLS,
GARAGES, AUDITORIUMS, LARGE HALLS, STORES, ETC.

The domestic or house-heating furnace is usually rated on a basis of a consumption of 4 pounds of coal per hour per square foot of grate surface and the parts are designed to withstand that amount of heat.

But to heat the space in a large building it is usually necessary to burn 10 to 15 pounds of coal

per hour per square foot of grate surface and no domestic heater should be expected to withstand that strain.

That's why we build this Giant heater. It is made especially to deliver just that type of service.

Get the furnace that fits the job.

The RUDY FURNACE CO., Dowagiac, Mich.

American Self Cleaning Furnace



The Furnace that Gives Maximum Heating Service

HERE is the warm air furnace that house-holders have been looking for. The cleaning feature insures delivery of the maximum amount of heat from the fuel burned.

There are many superior mechanical features about the American Self Cleaning Furnace which will make it a leader in your community.

Superior Features:

- 1 Covered Joints Throughout.
- 2 Large Upright Shaker.
- 3 Duplex Shaking and Dumping Grates.
- 4 Large Fuel Door.
- 5 Extra Heavy Construction.

Write for Catalog and Prices

**The American Foundry
& Furnace Co.**

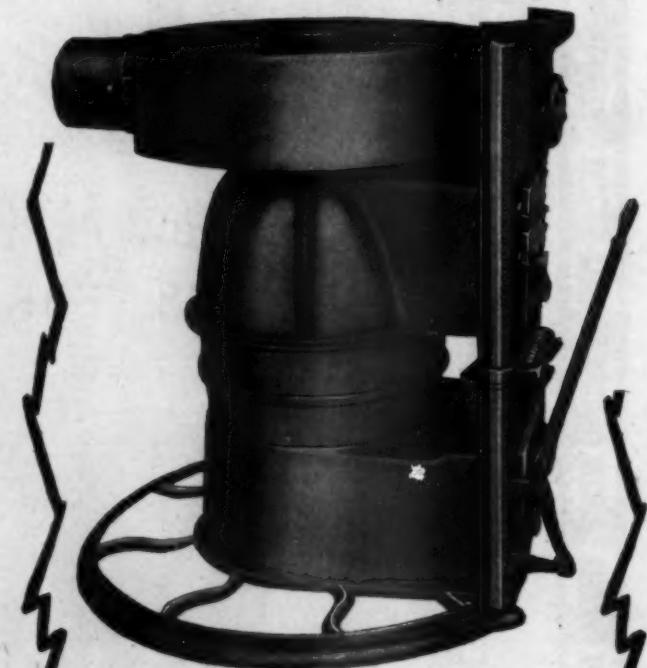
Dept. 400

Bloomington, Ill.

Mention AMERICAN ARTISAN in your reply—Thank you!



The "GEM" of the World



Quality and Features of the "GEM" place it far above its competitive class price

Just examine the quality of material and the smoothness of "GEM" castings. Examine the "GEM" One-Piece radiator—the radiator that is of absolute uniform thickness and soundness because it is made by a special new green sand core method of moulding. Measure its large and correctly designed combustion chamber. Notice the immense heating surface and the proper spacing for air travel.

and it is truly OVERSIZE

Every "GEM" is not only full size but OVERSIZE. And besides that it has solid one-piece base with solid one-piece base ring attached, clinker proof grates, easily operated by convenient lever shaker handle, large double feed door, large water pan and many other excellent features that make it a high grade business getting furnace.

There is real profit in selling the "GEM" because it has this real quality and because its price enables you to make a substantial profit.

Write today for full details and agency particulars

ROBINSON FURNACE CO.
228 West Lake Street Chicago, Ill.



Weir Steel Furnace

with these new, exclusive improvements
and a real FIVE YEAR GUARANTEE direct
to the user covering the entire Weir Furnace

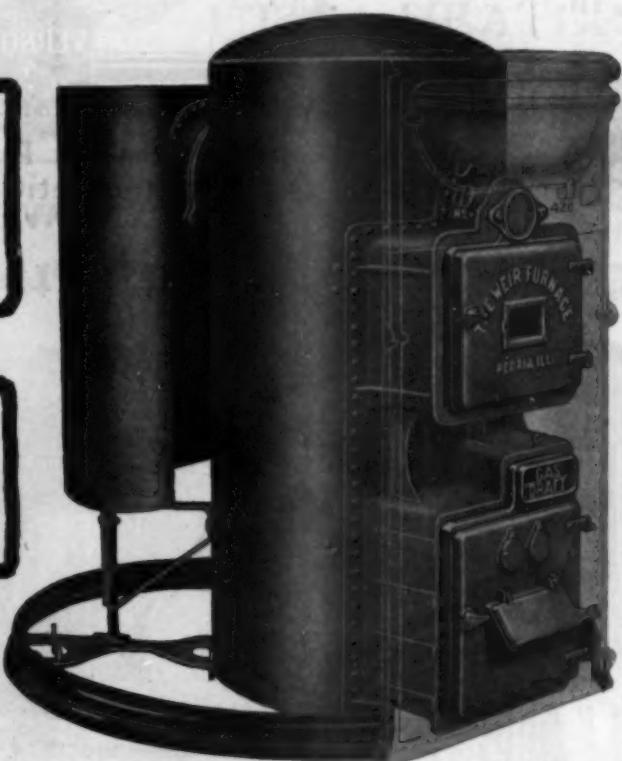
has opened the eyes of many dealers to the fact that such quality as this **must** make sales in spite of **any kind** of price competition.

It has shown them that the Weir is truly the highest grade warm air furnace made. That it is made for the highest type of warm air heating and that it can be sold to **any** warm air heating prospect strictly on its merit.

What these men have learned and what countless others have known about the Weir for over FORTY-THREE YEARS you too can know.

The best way is to study the Weir and the features listed below and then have a Weir representative call on you.

1
The biggest new Weir feature—notice the phantom view—the pouches or feed and ash throats extend thru the front. There are no door frames and no joint inside the casing. Doors are fitted direct to pouches.



3
The feed and ash pouches are in one piece, which is air-tight riveted to the main drum. There is absolutely no possibility of leakage inside the Weir casing. The supports for the radiator fit on lugs—no bolts thru the drum.

2
Both pouches and doors are surface ground—absolutely perfect fitting. Notice lever handle—adjustable hinges. Always a perfect-fitting door with this new feature.

4
The Weir Five Year Guarantee covers the entire furnace. Grates, fire pot and each and every part is covered by this guarantee. We make this guarantee direct with the user and it is a real guarantee with **no strings**. This generous guarantee is possible because we know that the Weir needs no replacing of parts within five years. Many 40 year old Weirs are still in service.

Tell us to send you samples of WEIR dealer helps.

5
The Weir is the one furnace for Oil Burning, because of absolutely leak-proof construction, no dampers. Weir is fitted with special doors for Oil Burner installation or can always be converted for such use. The Weir will actually hold oil.

Write for the



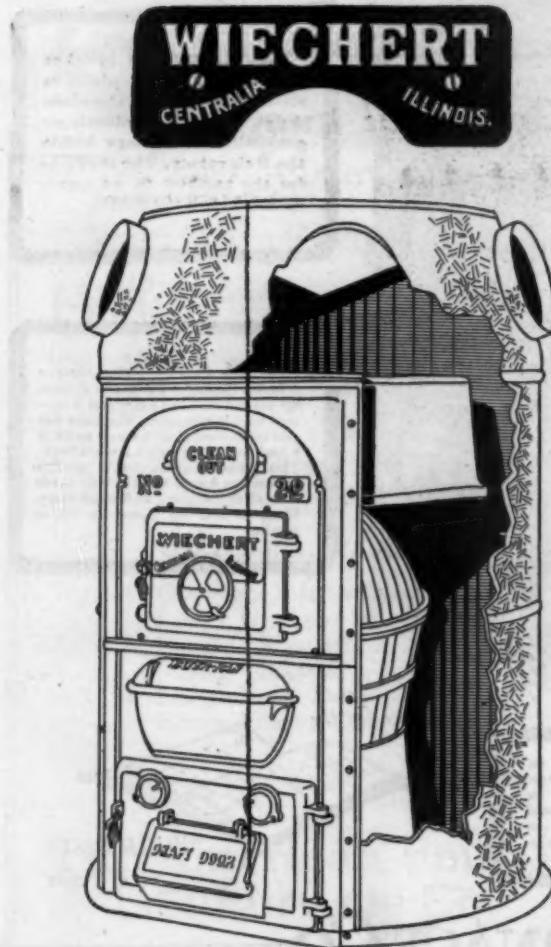
"WEIR Book
of Facts"

The MEYER FURNACE CO.
Peoria-Illinois

WIECHERT RADIATOR has double heating area

THE No. 20 Series Wiechert radiator is a hollow iron casting which exposes a double heating area to absorb heat from the smoke and gases so they circulate towards the flue. Thus, the Wiechert radiator utilizes a far greater amount of heat from the fuel burned than the ordinary furnace does—a saving in the coal bill. Tell your customers about it. Explain it! Sell Wiechert No. 20 Series Warm Air Furnaces! Write today for latest prices and discounts.

St. Clair Foundry Corporation
Centralia, Ill.



Vernois A Recognized Leader

THE Round Grate VENOIS
Furnaces are gaining popularity right along. The convenience of the upright lever shaker handle is an appealing feature. The grate rides on steel ball bearings, making it very easy to operate. There is a dump center.

Other leading features are: Large, round self-cleaning radiator, lock cup joints, proper distribution of weight and full measurements.

Drop us a line and we will send you full details of the entire VENOIS line and the attractive net prices.



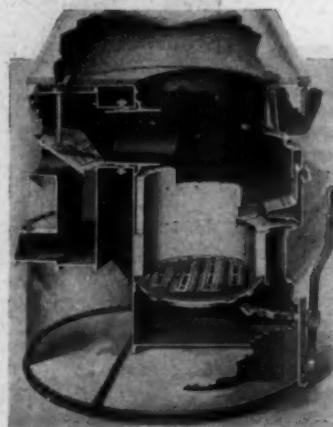
MT. VERNON FURNACE & MFG. CO.
MT. VERNON, ILL.



The Williamson BOILER PLATE FURNACE

In adding the Boiler Plate Furnace to its line, this company is merely extending into the steel furnace field the leadership which it has attained in the manufacture of cast furnaces.

The Williamson Boiler Plate has exclusive features which instantly remove it from the ordinary furnace of this type.



Guaranteed for 10 Years

oxygen directly over the flames, consuming all the heat elements in the fuel. Designed with the demands of the oil burner in mind, making it ideally adapted to any fuel.

Many other attractive features further emphasize the superiority of the Williamson Boiler Plate Furnace. New and interesting sales policy gladly submitted. Make sure of your territory NOW.

The Williamson Heater Co.
Cincinnati, Ohio

WE HELP YOU SELL THE FURNACES YOU BUY!



Cut-away View of
SUPER-SMOKELESS FURNACE

UNDER the new Utica Merchandising Plan our representatives co-operate closely with our dealers and help them sell the furnaces they buy. We have a definite Merchandising Plan which brings you new customers—sells more furnaces—and increases profits. It has been thoroughly tested by Utica dealers and is a proved success.

Besides the Merchandising Plan itself—which insures more customers and more sales—our dealers get valuable advertising and sales literature—and “cash in” on the many superior advantages of the SUPER-SMOKELESS Furnaces.

The new Utica Merchandising Plan places Utica dealers in a distinct class—*above competition*. It enables them to get the greatest possible amount of business and secure satisfied customers who build future business. It will pay you to sit down—right now—and write us to send, without obligation to you, full particulars of the new Utica Merchandising Plan.

UTICA HEATER COMPANY
UTICA, N. Y.

CHICAGO, ILL.

*Only real quality
can make real
profits for you—*

AND when you decide to sell steel furnaces, which you will some day, remember that the construction of the furnaces illustrated here has the features of construction that have made

“HOME COMFORT”

Steel Furnaces

famous favorites for over half century

True their construction has changed with time, but only when real quality features could be added. Recent improvements on Home Comfort furnaces have increased their heating surfaces and made them more efficient and economical consumers of fuel. (Notice the gas and soot consuming features shown on the feed door.)

We have a special circular called “A Dozen Appeals to Reason” which points out some of the “Home Comfort” features. Write for it today.

**ST. LOUIS HEATING CO.
2901-11 Elliot Ave., St. Louis, Mo.**

PITTSBURGH DISTRIBUTOR
Wagener Bros., 3005 East Street

100% Free Air Capacity

The Improved STEARNS REGISTER

Just Out—

THE finest job of free air capacity designing on the market.

No loss of strength—

No loss of neat appearance—

It's the one register that gets the air across and still does not look like a hole in the wall. Write for list of capacity sizes today.

Our production facilities have been increased and we can now take care of additional business. See the Improved Stearns Register now.

Our selling plan saves you money.

Write for our catalog and prices.



Features

100% Free Air Capacity

The enlarged openings have increased the free air capacity so that we now can guarantee full capacity. For example 9x12 Baseboard Register has 73 sq. inches and is intended for 9" pipe which has a capacity of 63".

Exclusive Patented Operating Device

The only operating device of its kind on the market. It does not use springs or tension. Simple and effective.

Superior Finishes

The highest type of finishing is used on Stearns Registers. They are furnished in all the regular electro-plated effects. Also finished in popular lacquer finishes such as Brush Brass, Antique Brass and in perfect replica of Oxidized Copper. These lacquer finishes sell on same list price as White Japan.

Quality Construction

Stearns Registers are sturdily constructed in every respect. They are exceptionally good looking and suitable for the finest homes.

Sales Policy Lowers Cost

Let us send you a sample together with our prices. We will show you how you can buy first quality registers at a saving by taking advantage of our sales policy.

STEARNS REGISTER COMPANY
617 Fort Street

Detroit, Michigan



Right now—get ready to replace old furnaces

WINTER is coming to an end. Right now while furnace troubles are fresh in people's minds you should easily convince them of their need for a Round Type Oakland Furnace. Tell them of its advantages. Explain how convenient it will be for them to have the furnace installed during the warm months.

Have you the latest prices and discounts? Write for them today.

OAKLAND FOUNDRY CO. BELLEVILLE ILLINOIS

NIAGARA Furnaces



CHARCOAL Iron supplemented with clean Pig Iron, with absolutely no scrap, gives that long life for which the

NIAGARA FURNACES Are Famous

They are laboratory tested from start to finish.

Every Furnace is mounted and assembled before leaving our plant to ensure proper fit.

The Niagara is a profitable Furnace for you to handle. It will make friends as well as money for you.

Write today for our 1926 Sales Plan

Also
Manufacturers
of
Monarch
and
Peerless
Furnaces

THE
FOREST CITY
FOUNDRY AND
MANUFACTUR-
ING CO.
1220 Main Avenue
Cleveland, Ohio

The Forest City Fdy.
and Manufacturing Co.
Cleveland, Ohio

A.A.

Send us complete information on
Niagara Furnaces at once.

Name.....

Address

**AMERICAN
WOOD
REGISTERS**

are thoroughly inspected and before leaving the factory must come up to the **AMERICAN STANDARD**, which assures you the highest quality.

THE AMERICAN WOOD REGISTER CO.
PLYMOUTH, IND.

THE BIG OPPORTUNITY for 1926 For FURNACE JOBBERS

Lies in
the
Agency
for

Grand

Warm
Air
Furnaces

Secure It Before It Is Too Late

Unrivalled Production Facilities Enable Us to Offer You a Furnace, Unequalled in Finish and Mechanical Precision—and at a Reasonable Price.

The Cleveland Co-operative Stove Co.
East 57th St. and Central Ave. Cleveland, Ohio

Eaglesfield EXTRA HIGH GRADE WOOD FACES

Made by special machinery. Finest white quartered oak and High Speed Ball Bearing mechanism insures perfect construction. Specially designed grooving saw cuts all grooves exact size. Eaglesfield Wood Faces are stronger than others—the cross pieces are 1/16 inch deeper than those used in other faces.

Single orders or carloads promptly at fair prices. Write today.

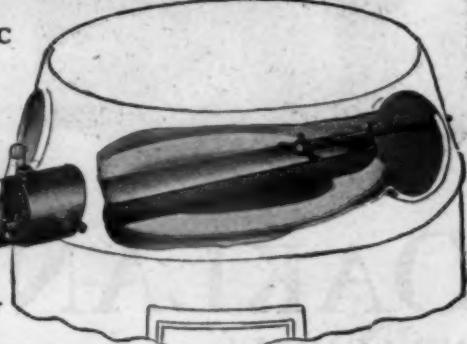
EAGLESFIELD VENTILATOR CO.
918 DORMAN STREET INDIANAPOLIS, IND.

NATIONAL AIR MOISTENER

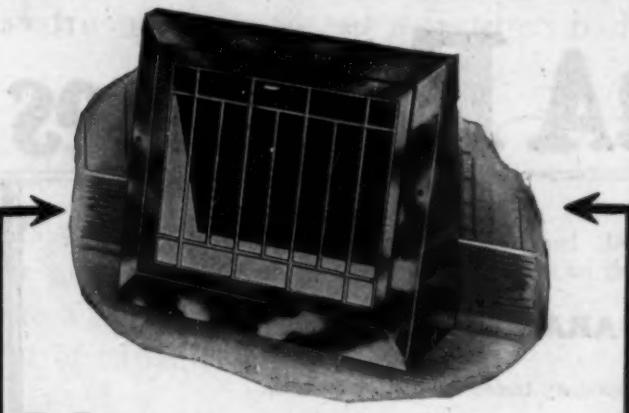
ENTIRELY AUTOMATIC

Absolutely fool-proof, has few parts, can't overflow. Connects directly with city water. Very simple and highly efficient. Can be installed in any type of furnace quickly. Easy sales and good profits.

Write today for circular and prices.



NATIONAL AIR MOISTENER CO.
525 South 7th St. Minneapolis, Minn.



Yes, we admit

it's Attractive
it's Efficient
it's Economical
it's the Vol-Yum register

for volume Furnacework
for volume Profits.

Mail coupon today for interesting prices and information.

Rock Island Register Co.,
Rock Island, Ill.

YOU may send your interesting prices and information on Vol-Yum registers.

Name _____
Street No. _____
City and State _____

Secretary Wanted for

**State Sheet Metal
Trade Association**

MUST be a live wire with pleasing personality. We want a man who is an organizer—one who is willing to work and who is a good, convincing talker.

In replying give full details as to your experience and qualifications. Tell us just why you feel that you can fill the bill.

Your reply will be held in strictest confidence. Address—Sheet Metal Trade Association, c/o American Artisan, 620 S. Michigan Ave., Chicago, Illinois.



Tanbo Sells Registers

TANBO, the famous finish we originated, has increased the register sales of many distributors.

It gives your customer a better looking register, a more finely finished register, a better wearing surface.

Tanbo contains the same ingredients as electro plate, applied under high pressure.

Tanbo wears indefinitely. Will not tarnish. Costs less.

Tanbo is *not* a lacquer. It is far superior to any lacquer in wearing quality and appearance.

Tanbo standard finishes are—Brass, Oxidized Copper, Antique, Bronze, Silver, Walnut, Oak, and Mahogany.

Drop us a line and let us send you full details regarding Tanbo, including a color card which shows the Tanbo finishes, as they are.

TUTTLE & BAILEY MFG CO.

Makers of Registers for 80 years

36 Portland Street, Boston

441 Lexington Avenue, New York

1123-29 West 37th Street, Chicago

704 East 18th Street, Kansas City

Bridgeton, Canada

T & B Registers and Grilles

REPS AERO-GAS RADIANT HEATER

DESIGNED by the original producer of Gasoline Pressure Radiant type heaters.

Finer results and perfect satisfaction. Heavy gauge steel construction, baked black enamel finish and nickel plated trimmings.

Top is designed to enable cooking. All parts are extra strong and well made. This illustration shows method of lighting.

Write today for illustrated circular giving full description of this heater and our new complete line of high grade quick selling Gasoline Pressure Cook Stoves, Rangettes, Cabinet Ranges and Table Ranges.

REPS HEATER COMPANY, Clyde, Ohio

**WIRE**

electrical, rope, barbed, plain, nails (bright and coated), tacks, spikes, bale-ties, hoops, springs, netting, wire fences, steel posts, steel gates, trolley wire, rail bonds, flat wire (strip steel), piano wire, round and odd-shaped wire, screw stock, concrete reinforcement. Aerial Tramways.

Illustrated Books describing uses, Free

American Steel & Wire

Chicago
Denver
U. S. STEEL PRODUCTS CO.:
San Francisco

New York
Birmingham
Los Angeles

Boston
Dallas
Portland
Seattle

Company

Write

For Our
Illustrated
Book of
Order Blanks

You'll find this book handy. It explains how and simplifies ordering Stove, Furnace and Boiler repairs from the—

Largest and Most Complete Stock

NORTHWESTERN
STOVE REPAIR CO., CHICAGO

**BOLTS**

WE MANUFACTURE A COMPLETE LINE OF BOLT PRODUCTS, INCLUDING STOVE BOLTS, CARRIAGE BOLTS, MACHINE BOLTS, LAG BOLTS, NUTS, ETC. ALSO STOVE RODS, SMALL RIVETS AND HINGE PINS. CATALOG ON REQUEST.

THE KIRK-LATTY MFG. CO.
1971 W. 85th St. Cleveland, O.

PATTERNS

FOR STOVES AND HEATERS
VEDDER PATTERN WORKS

FIRST-CLASS
IN WOOD and IRON
ESTABLISHED 1835 TROY, N.Y.

IRON AND WOOD
STOVE PATTERNS

QUINCY PATTERN COMPANY
QUINCY, ILLINOIS

PATTERNS FOR STOVES
AND HEATERS

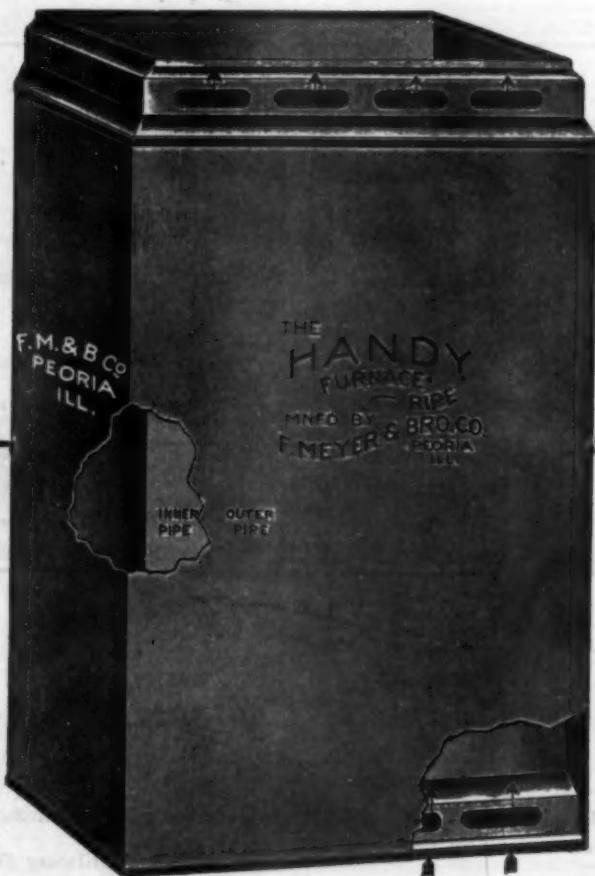
THE CLEVELAND CASTINGS PATTERN COMPANY
CLEVELAND, OHIO

Your
attention
is called
to the fact
that we
are able to
supply you with
Books
Patterns
and
Charts
for
Sheet Metal Work

Write us today
for complete catalog
and
special circulars

**AMERICAN ARTISAN
AND
HARDWARE RECORD**

620 S. Michigan Ave., Chicago, Ill.



THE NATION'S BEST FURNACE PIPE FOR 69 YEARS!

It's Handy by Name!

It's Handy to Get!

It's Handy to Work With!

F. MEYER & BRO. CO.

1311-13 S. Adams St.

Peoria, Illinois

Published to serve
the
Warm Air Furnace,
Sheet Metal, Roofing,
Stove and Hardware
Industries

Founded 1880

American Artisan

and
Hardware Record

Published EVERY SATURDAY at 620 South Michigan Avenue, Chicago

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G. J. Duerr
Frank McElwain

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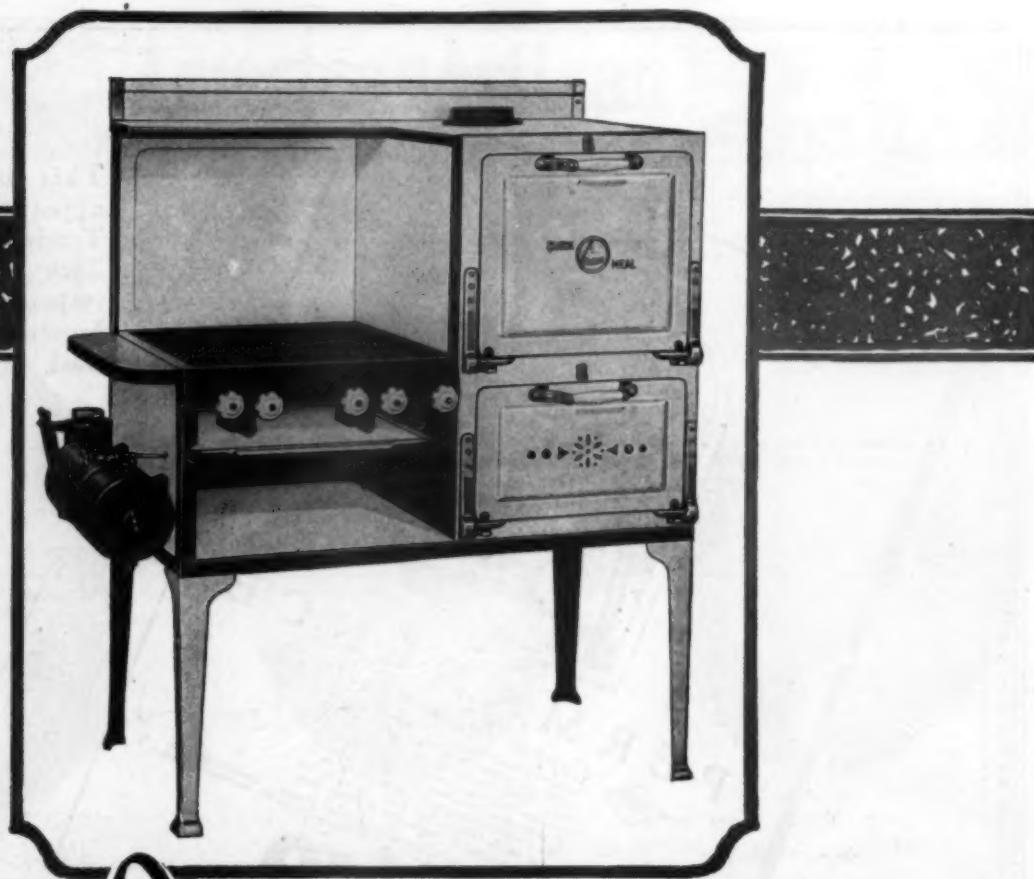
\$2.00 Per Year

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AN ACHIEVEMENT

An explanatory note regarding service to readers of AMERICAN ARTISAN. This paper is now nearing the completion of a half century of service. For almost fifty years it has catered to the needs of the men in the industries which it represents. At no time during its long and successful career has AMERICAN ARTISAN been in a better position to render complete, adequate service to its readers than it is today. In addition to the matter contained in our regular weekly publication, we maintain Service Departments for the use of our readers. If you have a problem to solve, we courteously invite you to submit it to us for solution. In what better way can we learn of your problems than from you direct?



There are Great Sales Possibilities in **QUICK MEAL Gasoline Pressure Stoves** ~~~

because of the enormous heat they produce, their convenience, cleanliness and safety. Just what a housewife wants in a cooking appliance, at prices within the reach of all, and in models to meet the needs of any family.

If you are not acquainted with the many selling and service features of Quick Meal Gasoline Pressure Stoves, clip and mail coupon—now.

QUICK MEAL STOVE COMPANY

Division American Stove Company
815 Chouteau Ave. Saint Louis, Mo.

They Burn Ordinary
Automobile Gasoline.



A Demonstration will
Sell Any Prospect!

QUICK MEAL STOVE CO.
Division American Stove Company
815 Chouteau Ave. • St. Louis, Mo.

*Please send us catalog No. 139,
prices and discounts for Quick
Meal Gasoline Stoves.*

This advertisement appeared in the Iron Trade Review Jan. 28th featuring the importance of copper bearing, rust-resisting steel.

PERMANENCE

Copper Bearing Steel

YOUR REQUIREMENTS for extra copper-bearing sheet should be met perfectly with Nesco Copper Bearing Steel. Time and again, under the most severe conditions, it has demonstrated a splendid quality of permanence, endurance, and resistance to rust. Nesco Copper Bearing Steel is identified by the famous double diamond mark and can be had in any standard or special style of Nesco Sheet.

NATIONAL ENAMELING & STAMPING CO. INC. - GRANITE CITY STEEL WORKS - GRANITE CITY, ILL.
Chicago - Dallas - Davenport - Denver - Kansas City - Los Angeles - St. Paul - St. Louis - Salt Lake City - San Francisco - Seattle

NESCO
Galvanized Blue Enamelled and Black Sheets - Plates and Tin Plate
SHEETS

Do Guarantees Kill your Profits?

NOTHING impresses your customers so much as an honest guarantee. And nothing kills your profits quicker than a guarantee on which you are forced to "make good."

Play fair with your trade and protect your guarantees with Nesco Copper Bearing Sheets—made for strenuous outdoor wear and longer life. Nesco Copper Bearing Steel is rust-resisting. It can be had in any standard Nesco Sheet through leading jobbers.

NATIONAL ENAMELING & STAMPING CO. INC. • GRANITE CITY STEEL WORKS • GRANITE CITY, ILL.
Chicago • Dallas • Davenport • Denver • Kansas City • Los Angeles • St. Paul • St. Louis • Salt Lake City • San Francisco • Seattle

CONTRIBUTING MEMBERS
TRADE EXTENSION COMMITTEE

DOUBLE
COPPER BEARING SHEET
DIAMOND

This double diamond trade mark identifies all copper bearing Nesco Sheets.



American Artisan and Hardware Record



Vol. 91.

CHICAGO, MARCH 6, 1926.

No. 10.



Frank Ederle,
Secretary



Homer F. Brundage
Retiring President



William Sullivan,
President-Elect

Michigan Sheet Metal Men Learn Much at the Queen City Convention

*Battle Creek Local and Travelers' Auxiliary Outdo
Themselves to Make Convention a Most Successful One*

By GEORGE J. DUERR

MICHIGAN is one of the states where the sheet metal roof has flourished most prodigiously. In this state the standing seam sheet metal roof is everywhere in evidence. One needs only to engage passage on any one of the numerous interurban lines running within the state's borders to observe and substantiate this fact. Further, one needed only to attend the Fifteenth Annual Convention of the Michigan Sheet Metal and Roofing Contractors' Association, held at Battle Creek, March 2 to 4, 1926, to realize why this is true. The convention—with one of the largest attendances on record—was held in the assembly hall of the Elks' Club. President F. Homer Brundage presided.

The convention was officially

opened Tuesday afternoon with singing led by Ralph Strong, one of the "Homer Harmony Hummers."

Mayor Charles Green, of Battle Creek, who delivered a short address of welcome, was introduced by Fred Sherriff. Mayor Green was exceedingly cordial in his greeting and welcome and congratulated the Michigan men on the progress they had made with their association.

President Brundage responded to the Mayor's address of welcome, stating that he was extremely glad to see so large a turnout at the convention.

An incident of passing interest occurred during the preliminaries of the opening session. President Brundage was presented with the gavel with which the first conven-

tion of Michigan Sheet Metal Contractors was called to order fifteen years ago.

Ros Strong of the Homer Furnace Company, Coldwater, Michigan, was the first speaker of the afternoon. The subject of his address was "Furnace Installation from the Basement Up."

Ros explained at the outset that he had offered the suggestion to the chairman of the program committee that some "untechnical stuff" be given the boys on furnace installation during the convention. "His reward," he said, "was that he himself was placed upon the program." Ros gave an excellent account of himself and left his audience with many good suggestions on the correction of defects in installation already in operation, but which

failed to function properly.

For instance, in both rooms which could not be heated, he said that if an addition was made to the warm air duct, bringing that member and its register to a higher point in the side wall, good results could



**Al Bersbach, G. E. Fitzgerald
and H. A. Lesh**

be obtained in drawing the warm air into the bath room.

Another method of accomplishing the same result was—where the furnace casing is found to be large enough—to place a wall stack on the inside of that casing, cutting holes in the casing at the top and bottom of the stack. The warm air duct was then connected to the top hole and with a floor register in the bath room at the bottom hole was connected the cold air duct and this in turn was likewise connected to a floor register in the bath on the opposite side of the room. "This method," Ros said he had found to work out satisfactorily.

Another instance of a furnace refusing to work was by Ros. In this case an entirely different situation had to be faced and corrected. Here the original installer had been unable to place the furnace in the center of the basement floor, with the result that the pipes were all taken from one side of the furnace and creating an "unbalanced" condition.

"The way to meet this condition is," said Ros, "to take off the slanting bonnet and to replace it with a flat topped bonnet. This done, the ducts can be placed over the entire surface of the bonnet, taking the longest run from the near side. This will throw the system again into equilibrium and it will then function properly." Other similar problems were also given. These problems Ros illustrated on the blackboard and they proved extremely instructive.

In closing his remarks, Ros digressed from the subject in hand long enough to mention the Michigan outing which it is proposed to hold in Coldwater this year. He said he wanted to see each and every



**Adam F. Martin,
Reelected Treasurer**

sheet metal man present at the outing with mother, sister, wife or sweetheart.

During the morning, while registration was in progress, members of the United States Register Company, Battle Creek, provided cars in which the delegates were transported to the Battle Creek plant of the company, where the processes involved in the manufacture of both steel and wood registers were viewed under the able tutelage of Charles J. Pearson, Vice-President; F. C. Bower, Auditor; W. H. Young, Purchasing Agent, and W. H. Shoop, Assistant Superintendent of the company.

The company had just recently moved into its new and spacious quarters. The trip through the plant was most interesting and instructive. Few people realize the amount of capital investment required for

the successful manufacture and marketing of warm air heating system registers, but all those sheet metal contractors who had the privilege of viewing the processes of register manufacture at Battle Creek through the extreme courtesy of the United States Register Company now have a far different conception of the capital investment required.

Joe Stearns of the Stearns Register Company of Detroit was heard to make a wager on the previous evening with Charles J. Pearson to the effect that the latter would not permit Joe to go through the United States Register Company's plant. Joe had not reckoned on the sportsmanship of Charlie Pearson, however, as Joe was among those present when the delegation went through the plant.

Secretary Frank Ederle mentioned the illness of Frank T. Dailey and asked that each member of the association send him a telegram,



Homer F. Brundage

telling him how he was missed at the convention.

Harry A. Beaman, president of the Indiana Warm Air Heating and Ventilating Association, was introduced. Mr. Beaman made a plea

for the unrestricted use of the Standard Furnace Code. He also asked that some thought be given to the training of the younger generation into a group of efficient warm

Committee is in existence today. Enumerating these, they are: 1—To regain the lost markets for sheet steel products; 2—to create new markets for sheet steel products; 3



Left to Right—Harry A. Beaman, H. S. Rogers, W. V. Schmidt and A. F. Fanning

air heating engineers. He said that if these young boys and men were taught and drilled in the use of the Standard Furnace Code from the start, they would insure the warm air heating industry of a brilliant future.

U. H. Hungerford, of the Copper and Brass Research Association was called upon for an address on copper sheets. Mr. Hungerford in turn introduced H. H. R. Spofford of the same association, who delivered a splendid address on the problems of the copper industry. Mr. Spofford's address will be published in full in a near issue. It should be read and studied thoroughly.

Following immediately after Mr. Spofford on the program came Harry S. Rogers of the Sheet Steel Trade Extension Committee bearing glad tidings that proved to be extremely melodious music to the ears of his audience.

At the outset Mr. Rogers explained of what the Sheet Steel Trade Extension Committee is comprised; why it is in existence and how and by whom it is supported.

In answering these questions Mr. Rogers took the second one first and gave the three main reasons why the Sheet Steel Trade Extension

—to create new sheet steel products for the already existing potential markets. From this Mr. Rogers went to the third question and pointed out just how the sheet steel mills had seen the necessity for banding together in this manner and how they proposed and are now spending vast resources to repopularize the use of sheet steel. He reiterated what he said in Indianapolis two

a competition between industry and industry—the sheet metal industry versus other industries supplying competitive products for a common purpose, such as the placing of terra cotta where sheet metal should have been used.

Mr. Rogers mentioned the interpretation by the Supreme Court of the legal status of trade associations as a stimulus to greater activity by the members of such associations. He admonished the men not to use the annual state convention as a subterfuge for having a good time, but to get down to business at the meetings and bring collective thinking to bear on their problems. They should use the Sheet Steel Trade Extension Committee as a clearing house for the entire industry—which it is.

Mr. Rogers mentioned the uniform city building ordinance problem, which cause the committee is championing. He spoke of the educational promotional work which the committee is undertaking for the benefit of the younger element in the industry. He touched upon the vast potentialities for a tremendous increase in the use of sheet steel in the manufacture of sheet steel furniture. The manufacture of furniture from sheet steel is growing rapidly. He said that 12 years ago



Left to Right—H. O. McElwain, Albert A. Secor, Fred J. Reule and V. W. Heather

weeks ago in saying that the real competition with which the sheet metal men are confronted is not the competition between one sheet metal contractor and another, but rather

the monthly amounts were only \$2,500, while in September, 1925, the amount of sheet steel furniture business reached the $\frac{1}{2}$ million dollar mark—irrefutable facts indicat-

ing in no uncertain way the direction of the trend in sheet steel furniture manufacture.

In order to show how a side line taken on to produce more plant efficiency had developed, Mr. Rogers



F. B. Harrington,
Director

related the facts concerning a sheet metal contractor whose main business formerly was the erection of cornices, gutters and skylights, but who had developed a side line in the handling of mop and fur closets for apartment houses to the point where he had been awarded a contract in furnishing these items in one building amounting to \$42,000.

Still dwelling upon the aims and objects of the committee Mr. Rogers said that the primary reason why sheet metal men are not making more money than they are is because they are, as a class, not good merchandisers. It is one of the purposes of the committee to help them to become good merchandisers. He said they must get their shops out of the alleys, clean their windows, clean their shops, put their names on the store fronts. He cited what the plumbers have done in this respect and what the result has been.

He also spoke of the tests which the committee is making on the various fluxes, and of the sponsoring by the committee of the creation of a sheet metal inspector for cities.

In speaking of the possibilities for new markets, Mr. Rogers spoke of a vitrious enameled sheet steel roof-

ing—in a varied color scheme. He also revealed the fact that the committee had been conducting a contest for ideas on more beautiful sheet metal garages. Several specimens of garage layouts designed to meet the artistic temperament of the most fastidious architect were shown and these were works of art.

He also mentioned the fact that George L. Bennett had been recently in Washington conferring with the Bureau of Standards of the Department of Commerce to test the fire resisting powers of sheet metal garages. He complimented the Michigan standard of nothing lighter than 26 gauge very highly.

In the evening the delegates were the guests of the Battle Creek Local



Harry Rhodes,
Director

Sheet Metal Contractors' Association at a buffet luncheon, followed by an entertainment which included popular Cook sisters of Chicago radio fame, a singer from "The Climax," a dancer from Chez Pierre, Chicago, and several others.

Wednesday's Session

There was no convention session held Wednesday morning. At 9:30 a. m. as many sheet metal men as presented themselves in the lobby of the hotel were invited into automobiles and driven to the Grand Trunk railway shops at the outskirts of the city. Arriving here, the delegates were allowed, through the courtesy of the Grand Trunk Railway Company, the extreme privilege of viewing the manufacture and assemblage

of the great mogul engines that are doing so much to solve our problems of transportation and without which our furnaces and roofing plates could not be delivered in such record time.

The journey to the plant was extremely instructive and enlightening. It revealed the immense and complex problems the railroads are forced to face in their every day activities in order that you and I are enabled to travel to these conventions and in order to assure an ample supply of food and things which go to make us comfortable being on hand while we are there.

One of the most interesting features of the visit was the demonstration of the apparent ease with which one of these giant steam monsters—weighing in the neighborhood of 175 tons—was raised to a height of perhaps thirty feet, transported suspended in mid-air half the length of the long building, brought back and replaced on the rails. The marvel of the act gains force when it is



Left, Joe Stearns; Right, Navarre Peabody

learned that the power to operate the motors of the crane which did the lifting was brought to the plant over a wire no larger than your little finger from a point fifty miles distant.

It is said that the hand that rocks the cradle rules the world. An active semblance of this was had at the plant referred to when it was found that the hand that controlled the levers of the crane which performed the feat described above were controlled by a woman—said to be the only female crane operator in the country. Cheer up, men, the crane operator got her power from the brain of man.

Wednesday Afternoon

In the afternoon Dr. Paul Voelker, President of Battle Creek College, was scheduled to speak. Dr. Voelker found it necessary to be out of town on that day and asked Dr. I. O. Foster of the college to take his place, which the latter did in a manner very acceptable to his audience.

The theme of Dr. Foster's address was "Service." He set out by depicting a cross-section of society and analyzing it. He said that an elementary training is a first essential to the making of success in business organization. High school and college training, when properly pursued, adds just that much to the man's mental equipment. But these alone are not sufficient. There must

Then there is the vocational aspect. A man must have a wholesome vocational activity. In other words, the prerequisites to successful and well rounded life were summed up as follows by Dr. Fos-

ance with specifications. Any deviation from the original specifications which he undertakes unbeknown to the owner or principal should be for the betterment of the job—never to weaken that job.



Left to Right—A Group of the Boys in the Snowstorm Outside of the Elks' Temple—They Wouldn't Wait to Give Their Names—Too Cold

ter: 1—Good, common bay horse sense—the ability to think. 2—Both the theoretical and practical training of the proper sort. 3—The ability to meet people. 4—The ability to coöperate. 5—The ability to lead

In closing Dr. Foster said that every sheet metal contractor should work with the aim always uppermost in mind to make each customer say: "I have been served and satisfied."

E. R. Morton, President of the City National Bank of Battle Creek, was introduced. He spoke on the relation existing between the sheet metal business and banking and left the thought with his audience that *character* and *integrity* are the prime requisites to a well rounded life—a service to humanity.

Secretary Frank Ederle called attention to the method now being employed by Shouldice Brothers Sheet Metal Works in teaching their employes the art of the sheet metal trade. The company has organized a class which meets every Friday night and which at the present time has nine members. The fundamental object of the class is not alone to make the Shouldice employes masters of the art of sheet metal craftsmanship, but is designed to develop the spirit of service and to point out the importance and to develop character and integrity.

A communication from W. H.



Left to Right—Adam Scheffer, Bill Busch, Harry Rhodes and W. A. Ameling, Outside the Elks' Temple, Also in Snowstorm

be added worldly experience, religious activity, political relations—the ability to see things as they ought to be—right ought to be the uppermost objective after which to strive.

men. 6—A mind that can understand the absolute necessity of employing men of good moral character. 7—The business man must have a social mindedness; he must work in good faith and always in accord-

Dailey, President of the Ohio Sheet Metal Contractors' Association, was read. The message contained greetings and well wishes from the Ohio organization to the Michigan men.

C. C. Austin, Secretary of the Michigan Employers' Casualty Company, Lansing, Michigan, spoke very ably on the employers' liability to damages for destruction of life and property by an employe while on duty. He pointed out the abso-

lutely necessary of employers having protection from unforeseeable accidents which are apt to involve them in costly lawsuits or cause them to pay indemnity charges. Many of the court's interpretations of when an employe is and is not on duty were extremely arbitrary and seemingly entirely lacking in justice. He cited one instance of where an employe, while driving his own car in taking a fellow employe who had been injured in the shop, to the hospital had run down and killed a man. Posted notices were everywhere in evidence in the shop to the effect that in the event of injury to an employe a certain ambulance should be called to convey the injured person to the hospital. In spite of this fact the court ruled that the employer was to blame for the death and compelled him to pay damages.



The Ederle Boys, Gus, Charlie; Their Dad, Frank, and Gramp, C. H. Ederle—No Wonder the Michigan Associations Runs So Smoothly

lute necessity of employers having protection from unforeseeable accidents which are apt to involve them in costly lawsuits or cause them to pay indemnity charges. Many of the court's interpretations of when an employe is and is not on duty were extremely arbitrary and seemingly entirely lacking in justice. He cited one instance of where an employe, while driving his own car in taking a fellow employe who had been injured in the shop, to the hospital had run down and killed a man. Posted notices were everywhere in evidence in the shop to the effect that in the event of injury to an employe a certain ambulance should be called to convey the injured person to the hospital. In spite of this fact the court ruled that the employer was to blame for the death and compelled him to pay damages.

Another instance cited was that of a truck driver of a certain employer. The truck driver had been given positive instructions that he

should under no circumstances permit anyone to ride with him on the truck. The driver did take a man to ride with him unbeknown to the employer. The truck collided with a street car. The passenger was killed and the courts ruled against the employer, who in turn was compelled to pay heavy damages. The only protection the employer has against such unexpected drains on his business is the public liability

about determining the proper bid to make.

Some of the items which were embodied in the discussion were: A list of estimated indirect expenses for the year which cannot be charged directly to the contract, such as (a) depreciation costs and how to get a correct depreciation rate; (b) interest on capital invested in the business; (c) idle hours of labor, how to determine them—the difference between the number of hours charged directly to the contract, minus any time spent on repairs, etc., equals the idle hours of labor.

As an aid to the determination of the idle hours of labor, Mr. Schmidt advocated the use of a daily time sheet, upon which is shown, when filled out by the employe, the nature of work performed, the length of time spent on each job, the rate per hour of workman's pay on each job and the total cost of labor.

He also advocated the use of an operating estimate sheet. This sheet is to show the contractor's estimate of the time each particular operation on a job should require and the estimated cost of that labor—this sheet to be handed to the foreman for his own information and as a check on both the workman and the contractor himself in his estimates.

Mr. Schmidt said that the apportionment of indirect expense should be made on a time basis—reduce it to an overhead rate per man per hour. Example: Time 180 hours; total cost, \$135. Then, $\$135 \div 180 = 75$ cents per man per hour.

These various sheets were thrown on the screen with the aid of lantern slides. A set of these will appear in a near issue of AMERICAN ARTISAN.

The Banquet

The banquet was a great success. Something over 200 delegates were treated to a marvelous dinner and entertainment by the Travelers' Auxiliary.

E. G. Weir was toastmaster and he made things very lively indeed. The Kalamazoo Collegians furnished excellent music and the

Mr. Schmidt made a very comprehensive outline on how to set

Wolverine Quartette sang several selections in beautiful harmony. The speaker of the evening was Douglas Malloch, who addressed the diners on the "Average Man."

Mr. Malloch has a nation wide fame as a poet and his pleasant wit and sparkling humor kept the audience in a laughing state from the time he began until he seated himself. The committee in charge deserves full credit for the wonderful work it performed in putting on this wonderful dinner and entertainment. Everyone present enjoyed it all to the fullest extent.

Thursday's Session

At the opening session Thursday morning R. B. Strong, of the Homer Furnace Company, Coldwater, Michigan, read letters from the mayor and the Chamber of Commerce of Coldwater inviting the Michigan sheet metal men to hold their annual summer outing at Coldwater in 1926. A motion was made by Harry Rhodes of Grand Rapids to the effect that the invitation be accepted with thanks to the city of Coldwater and the Homer Furnace Company. The motion was unanimously adopted. Therefore the 1926 outing of the Michigan Sheet Metal & Roofing Contractors will be held in Coldwater, Michigan.

J. E. McInany, Secretary and General Manager of the Paint & Color Company, of Lansing, spoke on the "Painting of Galvanized Sheets."

The Secretary's report, to be found embodied in this report a little farther on, explains what action has been taken in supplying a paint that has been developed by this company and found to do the work required of it in the situation explained.

In answering question, Mr. McInany explained that the use of a good grade of painter's naphtha be used as a thinner in paint that is to go on metal surfaces. It might be mentioned that 10 per cent of the returns received by the company on sales of this paint made by the company goes to the Michigan association.

A. W. Howe of the J. M. & L. A.

Osborn Company, Cleveland, Ohio, discussed the Michigan Standard. He emphasized the fact that the man who talks quality gets the business in the long run.

Secretary Frank Ederle then made his report which follows:

Secretary Ederle's Report

Convention days bring back fond memories of preceding events; convention days recall the active interests of the officers and committee members; convention days also require a report from the secretary. I therefore submit this report for your approval.

When the President's gavel sounded taps on the 1925 convention in Detroit, a small group of sheet metal contractors from Battle Creek fully realized the magnitude of a promise



Gus Ederle,
Assistant Secretary

they had made to the organization because it is well known that Detroit left nothing undone to make the 1925 meeting the most interesting and successful sheet metal convention ever staged in the world. The convention you are now attending speaks for itself. Battle Creek offers no apologies. The boys from the Queen City act in their usual Battle Creek form. I am sure you have appreciated their efforts.

Reviewing the activities of the organization for the year I find that the steady progress of the association has not been impeded. I notice that committee and board meetings have been attended 100 per cent. Every meeting called by the Presi-

dent or myself has met with proper response. Every request for financial underwriting has been immediately taken care of. In fact, you have responded most wonderfully to the needs of your organization.

The sheet metal industry of Michigan will continue to prosper; the benefits accruing to those engaged in this business will be maintained as long as this co-operative spirit exists. Your conduct and the foresight of the officers will determine the future of your industry. I am sure you are willing to proceed along the lines of this well set policy.

The state association owes much to the support of its local associations because after all the greatest cash value to sheet metal association membership is vested in the home body. However, the larger problems are more successfully handled by your state organization and that is just what your association is attempting to do.

The direct selling of your products to the consumer is being discouraged. Every legal measure is being taken to prevent such practices. Many instances of direct sales have been reported and in no case has the offence been allowed to pass without a searching investigation. You should report to me every violation of this rule.

Because of the many more recently offered benefits, some of the older ones are frequently forgotten. I refer particularly to the saving on fire and compensation insurance. You are entitled to a saving of 50 per cent on fire insurance, and the only reason for this is that your organization made this possible for you. Those of you who are carrying compensation insurance with our company are buying the best casualty policy written in Michigan. You are enjoying this protection at a much lower rate than is obtainable in any other company. We have been with the Michigan Employers' Casualty Co. for nine years. They have given full protection without reservations, payments to the injured employes have been promptly met and no complaint has

ever reached my office which would indicate that this company was not willing to assume its proper responsibilities.

In 1921 your trade extension board decided that a trade-marked material, bearing the sponsorship of the association, should be brought out. The members of this board had a firm conviction that to maintain the position formerly occupied by sheet metal products it was necessary to adopt a proper specification for the manufacture of galvanized sheets and to have them die-stenciled with a trade-mark which could be identified and be under the inspection of your association. The outcome of this was the adoption of a trade-mark which became nationally known. Michigan Standard has been ridiculed, but the idea behind the product still prevails and now after its many tribulations it remains the most outstanding constructive movement ever attempted by the sheet metal industry. Whether you use this product or not, a step in the right direction to the use of better sheet metal has been taken. The speed it assumes will depend upon your co-operation.

Do you care to be one of the fellows who says, "Let George do it?" or do you wish to be one of the honest to God chaps who realizes that it was not your fault that you were born a free American citizen. For this privilege you owe a duty to your community. That duty demands of you a wholesome respect to fellowman. It further demands that you co-operate with your competitor to make the business you are engaged in more amiable and constructive.

I bring these facts to you because I sometimes wonder just what you expect me to do and just what cash returns you anticipate from a ten dollar investment.

Your trade extension has been conducting a thorough investigation in regard to a proper paint primer for zinc coated steel sheets. This board has finally arrived at a proper formula and has negotiated with the Lansing Paint and Color company for its manufacture. This paint

primer is now on the market. Will you buy a sample order and report to me what you think of it.

Many other activities could be reported but I am sure you will agree that this is sufficient until my next letter reaches you which will be the latter part of April.

As a closing paragraph I wish to remind you of the fact that this is not a one-man organization. To accomplish the many things that you desire will require your fullest co-operation. I am sure I will get it.

John Sweet, President of the Grand Rapids local, presented invitations for the convention to be held at Grand Rapids next year. The invitation was accepted with a rising vote of thanks. The next convention will be held in Grand Rapids.

Election of Officers

The election of officers resulted as follows: President, William Sullivan, Detroit; Vice-President, Harry Rhodes, Grand Rapids; Treasurer, Adam F. Martin, Saginaw; Secretary, Frank Ederle. Directors, Homer Brundage, retiring President; George Luban, Jackson; William (Bill) Busch, Detroit.

A motion was made at the behest of President Sweet, Grand Rapids local, that Charles (Doc) Weatherly, Grand Rapids, be given a paid-up life membership in the organization in lieu of accepting Mr. Weatherly's resignation, which had been submitted on account of ill health. The motion was unanimously adopted and Mr. Weatherly is honorary life member of both the Grand Rapids local and the state association, a similar action having been taken by the Grand Rapids local. This honor was conferred upon Mr. Weatherly in appreciation of the good work done by him for the associations and the industry at large.

During the morning session cigars were passed out to delegates with the compliments of the J. D. Swartout Company, Saginaw. Beautiful Autopoint lead pencils, with which to write more orders, were handed out by Mr. Howe with the compli-

ments of the J. M. & L. A. Osborn Company, Cleveland, as were the solder brushes with which the delegates were presented.

A motion was made and carried that a letter of thanks be written and sent to the Battle Creek local, the Travelers' Auxiliary and the trade papers who had contributed so generously to making the convention the undoubted success it was.

President Gillespie of Ohio Auxiliary Appoints Directors and Committees

The following directors and committees have been appointed by President Lee Gillespie of the Ohio Jobbers' and Salesmen's Auxiliary to help conduct the affairs of the Auxiliary for the ensuing year:

Directors: N. O. Hexamer, Berger Manufacturing Company, Canton; M. M. Gardner, J. M. and L. A. Osborn Company, Cleveland; S. A. Schwarz, Eagle Paint Company, Cleveland, and O. E. Waller, Folansbee Brothers, Pittsburgh.

Publicity Committee: Miss Etta Cohn, AMERICAN ARTISAN, Chicago, and J. Lennon, Lennox Furnace Co., Canton, Ohio.

Resolutions Committee: A. M. Vorys, Vorys Brothers, Inc., Columbus, and Mr. Snowden, Morse-Rogers Company, Cleveland.

Entertainment Committee: E. W. Norman, Taunton-New Bedford Company, Cleveland, and J. D. Rogers, Morse-Rogers Company, Cleveland.

Sappenfield and Sims Move Sheet Metal Business to Larger Quarters

The Sappenfield and Sims Sheet Metal Works and Radiator Repair Shop at Jefferson City, Missouri, has moved from the rear of Unwin's Hardware Store to the old home of the Star Rug Cleaners, where they will have larger quarters and be able to offer better and speedier service to the public.

The proprietors are Chris Sappenfield and Ned Sims.

Michigan Travelers' Auxiliary Hold Meeting With Record Attendance

Boys Show Their Stuff as Politicians and Orators in Election of Officers

By J. F. JOHNSON

WEDNESDAY afternoon, March 3rd, the annual meeting of the Michigan Travelers' Auxiliary was held at the Post Tavern, Battle Creek, Michigan. Over eighty-five auxiliary members had registered up to the time of calling the meeting and over sixty were on hand when President Charles J. Pearson banged the gavel for order.

After the reading of the minutes



Charles J. Pearson,
Retiring President

of the previous meeting and the Secretary-Treasurer's report by Secretary W. W. Chalk, Glenn H. Burgess gave a report for the Membership Committee.

President Pearson was especially delighted with the record attendance and, as Ralph Blanchard was known to be a member of numerous auxiliaries, he was called on to tell what he thought of the Michigan crowd.

Ralph praised all the auxiliaries and handed Michigan its due bouquet for its successful career.

W. H. Young reported for the Entertainment Committee and the boys gave him a hand for the work he and his committee had done.

Among the members present were W. P. Laffin, President of the Illinois Travelers' Auxiliary, and Lee

W. Gillespie, recently elected president of the Ohio Jobbers' and Salesmen's Auxiliary.

The routine of the meeting went off in snappy fashion and one after the other of the men had a word or two on membership work which was the big topic of discussion.

E. B. Root offered the suggestion that Auxiliary members work not only for new auxiliary members but also for new members for the contractors' association and that the auxiliary body enlist the contractors' aid in securing new members for the auxiliary.

It was suggested and adopted that Secretary Chalk send each member a small supply of application blanks so that when occasion arises the salesmen may proceed to sell and also sign up prospects.

The next order of business was the election of officers, and Gilbert G. Moore, Chairman of the Nominating Committee, spoke of the work done in finding logical men for the posts to be filled.

He submitted the names of Ros Strong and E. B. Root for President. Mr. Root arose immediately and after a brief speech moved that the Secretary be instructed to cast a unanimous ballot for Mr. Strong.

This action resulted in the election of Ros Strong for President for the ensuing year.

Mr. Moore submitted the names of E. B. Root and Thomas O. Le May for Vice-President. Mr. Le May withdrew and E. B. Root was elected Vice-President by unanimous ballot on the suggestion of Edwin F. Snyder.

Mr. Moore gave a talk of praise for the work of Secretary Chalk and placed his name for re-election.

The office of Sergeant-at-Arms called forth a rapid fire of parliamentary discussion. Nominations were made and withdrawn and re-

instated so fast no accurate record is here attempted.

Mr. Moore placed Ed. Snyder in nomination for this office which brought Mr. Manny to his feet in support of Verge Rolland for re-election. Mr. Snyder withdrew and it seemed like an easy re-election until George Powell said that he has gained entrance to the meeting without a badge.

During the following excitement



W. W. Chalk,
Secretary-Treasurer

Tommy Thompson nominated Chas. J. Pearson, Ros Strong nominated Ralph Blanchard, Mr. Moore named R. W. Bristol, Mr. Snyder nominated Mr. Manny and even little Charlie Nason got in the nomination.

The fun was finally gavelled down and Mr. Rolland was elected by a large majority.

Milcor Adds Two New Salesmen to Chicago Territory

E. G. Holly and L. O. Armstrong are two live wires who have just been added to the staff of the Milwaukee Corrugating Company's Chicago Branch under the capable management of W. F. (Billy) Walder.

Mr. Holly will represent the Milcor Company on the general line in Chicago, and Mr. Armstrong, who was formerly with the Berger Manufacturing Company, will represent the Metal Ceiling division in the Chicago territory.

Pattern Shows Construction of Layout for Canopy Hood

*Pattern for Hood Requested by
T. H. Claussen, Valparaiso, Indiana*

Written Especially for AMERICAN ARTISAN by O. W. KOTHE, Principal, St. Louis Technical Institute, St. Louis, Missouri.

RESPONDING to the inquiry of T. H. Claussen, 119 East Lincolnway, Valparaiso, Indiana, for a canopy as per the plan and elevation, I will say the accompanying drawing will give the solution.

First draw the plan, giving the width and length, and place the hip

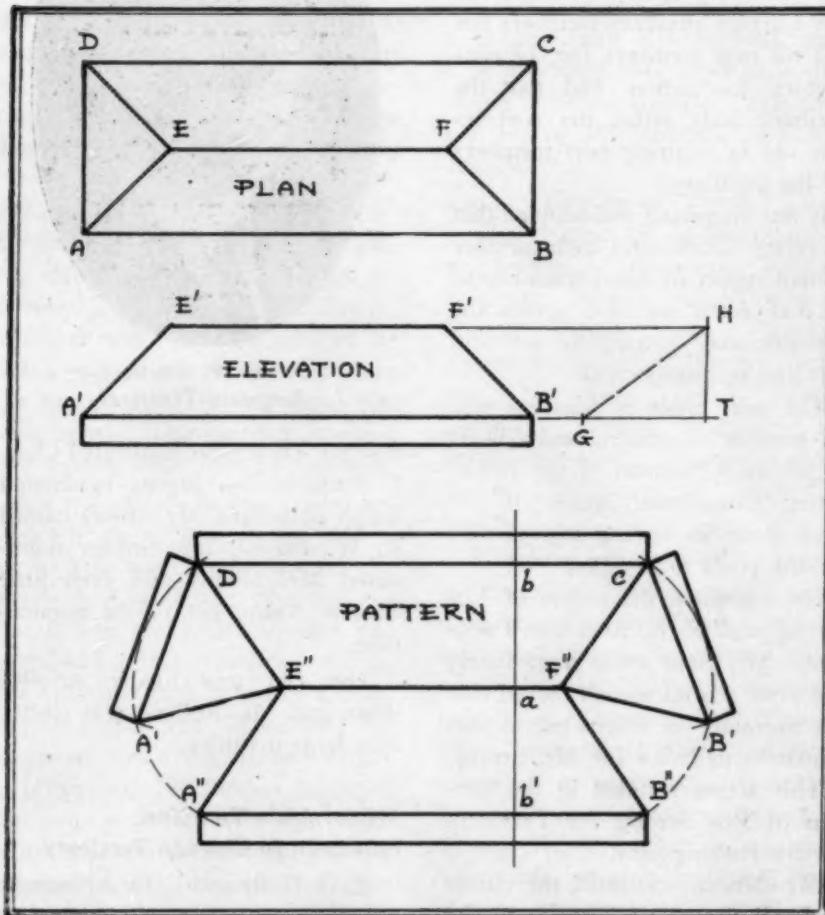
if we pick the plan hip line as A-E from plan, and set it as T-G in diagram, then H-G will be the true length of hip line.

To set out the pattern for the hood, pick the slant height of elevation, as A'-E', and set it on a set line as, a-b and a-b' and draw hori-

length of plan as A-D, and using D' and C as centers, cross arcs as on points A' and B' in pattern. This enables drawing the hip line A'-E'' and F''-B'. Edges must be allowed extra, and the space B''-B' and A''-A' will be the amount of material to cut out after edges are allowed as shown.

In practice this work can be shortened quite a bit, by drawing the plan and elevation to a scale, and then simply enlarge the work for the full pattern. Or if the full working drawings are desired, then only a part of the plan and elevation is required. Men accustomed with geometry can dispense with the elevation altogether and only use a small part of the plan, and the diagram of true lengths.

But this method of laying out canopies of this kind is economical of the sheets and is also convenient to shape up, especially where the canopy is not very large. The vent pipe should be made about 1/15 in area to correspond with the base of the hood. Otherwise the pipe may be placed anywhere where it is most convenient.



Pattern for Canopy Hood

lines to a 45-degree angle, which will make the length of the ridge. The length of the ridge bar will then be equal to the end of hood subtracted from the length. Now the elevation can be made to have any height, but in this case we also made the end lines A'-E' and B'-F' to a 45-degree slope, which gives an altitude of H-T of diagram. Now

horizontal lines indefinitely. Then make the ridge line E''-F'' of pattern equal to E-F of plan. Next, use dividers and set to the slant line of hip or H-G, as radius, and using E'' and F'' as centers—strike arcs crossing the horizontal line D'-C and A''-B''. This enables drawing the hip lines as D'-E'', and A''-E'', etc. Next pick the end

Akron Sheet Metal
Contractors
Elect Officers

The Sheet Metal Contractors' Association of Akron, Ohio, held their first meeting at the Elks Club recently where the following officers were elected to conduct the affairs of this new association for the coming year:

President, W. J. Howald of the Howald Sheet Metal Company; vice-president, Albert A. Koehn; treasurer, I. L. Wilson; secretary, E. W. Kramer, and William Pfeifle, director to the Builders' Exchange.

**President Cummings
of Western Warm Air
Appoints Committees**

President D. E. Cummings of the Western Warm Air Furnace and Supply Association has appointed the standing committees for year 1926, according to John H. Hussie, secretary. The first name on each committee is the chairman thereof.

It is desired that the chairman of each committee get in touch with the other members at once so that some progress may be shown at the summer meeting.

Standardization Committee

F. L. Nesbit, chairman, Omaha, Nebraska; R. W. Blanchard, Hart & Cooley Company, Chicago; Chas. Glessner, Excelsior Steel Furnace Company, Chicago.

Code and Furnace Rating Committee

Geo. Harms, chairman, Peoria; A. P. Lamneck, W. E. Lamneck Company, Columbus; E. A. May, Abram Cox Stove Company, Chicago.

Publicity Committee

R. C. Walker, chairman, Peoria; S. P. Burgess, Rock Island Register Company, Rock Island; Etta Cohn, AMERICAN ARTISAN, Chicago.

Membership Committee

H. W. Symonds, chairman, St. Louis, Missouri; R. W. Menk, Heating Systems & Supply Company, Chicago; J. H. Manny, Robinson Furnace Company, Chicago.

**Wall Manufacturing
Supply Company Has
New Blow Torch**

Dreadnaught blow torches are in use by the thousands, but few people know just how they are made. The illustration shows at a glance every operating part of the new wall Dreadnaught No. 41 and will give our readers a little clearer insight into the operation of those well known torches.

Some of the advantages claimed for this new torch are: It can be supplied to burn kerosene or gasoline; it produces a bigger, broader flame; every time the valve is opened the orifice is automatically cleaned by a needle, which is easily removed and replaced if damaged; it is impossible to enlarge the orifice

or damage the valve seat. It is also equipped with a special burner patterned after the highly efficient wall furnace burner. Other features, common to all Dreadnaughts, in-



The Dreadnaught Blow Torch

clude seamless steel tank with bottom and all connections brazed with hard brass spelter solder, fuel economy, long life and absolute safety.

**Liberty Foundry, St. Louis,
Open Branch Office
at Chicago**

The Liberty Foundry Company, St. Louis, Missouri, has established a branch office in Chicago. This new office is located at 2356 North Clark Street, Chicago, and is under the immediate direction of R. G. Ray, according to H. C. Cochran, Sales Manager.

A complete stock of furnaces will be kept on hand at all times. These will be handled by Crooks Terminal Warehouses.

**April 15 and 16 Are Dates for
Texas Sheet Metal Convention**

From Harry Stanyer, Secretary of the Texas Sheet Metal Contractors' Association, comes the following announcement:

"The Texas Sheet Metal Contractors' Association will hold their Convention on April 15 and 16. We regret that the dates had to be changed again, but the change was made with the interest of the members in mind. A large national convention will be held in Dallas during the week of April 19th and all available hotel space will be taken. Therefore, for the convenience of

the members of the Association and the Auxiliary, the dates of the convention have been moved up one week.

"The third time is the charm, so these new dates we guarantee to be permanent."

**S. L. Products Company
Has Perfected
Aluminum Solder**

The S. L. Products Company, Council Bluffs, Iowa, has developed a solder known as S. L. solder, adapted to the work of repairing aluminum. Some considerable time has been spent in research work and testing and the final result is this solder.

Small specimen pieces of the solder are available for distribution and will be sent to those who request them. Write for yours at once.



**Alternating Flashers for Electric
Signs.**

From The Hough Manufacturing Company, 2520 24th Street, Detroit, Michigan.

Will you please advise us where we may purchase 60-watt alternating flashers in pairs, used for small electric signs? The flasher element consists of a small connection placed between two electric sockets causing a make and break in the circuit of first one light and then the other.

Ans.—Phelps Electric Company, 29 South Clinton Street, Chicago.

Cast Iron Smoke Pipe and Elbows.
From Arthur J. Scott, Secretary Michigan Retail Hardware Association, Marine City, Michigan.

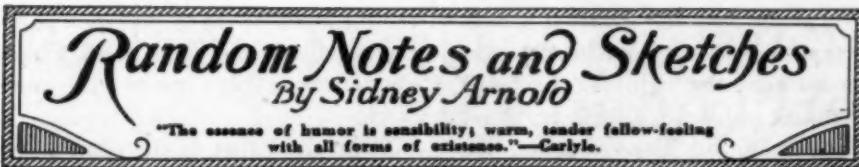
Kindly inform me who manufactures cast iron smoke pipe and elbows.

Ans.—Waterloo Register Company, Waterloo, Iowa, and Faultless Castings Company, Brazil, Indiana.

Acetylene Gas Ranges.
From W. B. Jordan and Son, P. O. Box 508, Lynchburg, Virginia.

Can you inform me who makes acetylene gas ranges?

Ans. — Acetylene Stove Manufacturing Company, 5906 Park Avenue, Cleveland, Ohio.



A. F. Fanning, who was recently made District Sales Manager for the Langenberg Manufacturing Company, St. Louis, has just returned from an extensive trip through the Southern states in the interests of the Langenberg company. When I saw Mr. Fanning at the Michigan Sheet Metal convention at Battle Creek this week he had just returned, bringing with him a very satisfactory group of orders. Mr. Fanning, who makes his headquarters at Auburn, Indiana, has been with the Langenberg organization for over seven years and was promoted to the position of District Sales Manager after Harry A. Beaman had left that position in the Langenberg organization.

* * *

A great calamity occurred at the Michigan Sheet Metal Contractors' convention this week. Al Bersbach, in his haste to get to the convention and all that that implies, forgot his now famous sheet metal saxophone, thus depriving conventionites of one of the treats of the meeting. In their sorrow and mortification the attending delegates turned to the only other diversion open to them (the exercise of their vocal organs). Some succeeded quite well in that diversion and the rooms of the Post Tavern reverberated with harmonious melody. Others were less successful in that but succeeded only too well in another. All this because Al Bersbach was so injudicious as to forget his sheet metal sax.

* * *

Mr. Graham dropped in to see me one day last week. Mr. Graham, you know, comes from Oskaloosa, Iowa, where they grow some of the finest corn in the country. Mr. Graham is a firm believer in association work. He goes to all the Iowa conventions and is thor-

oughly sold on the idea of working out problems collectively as is done at such meetings. He also believes that the short course to be given at Ames this year is going to prove a success.

* * *

I am dreadfully sorry to learn of the illness of Richard L. Young, Secretary of the Carolinas-Virginia, Sheet Metal Contractors' Association. Mr. Young's illness has prevented his attendance at the convention of that association this week at Richmond, Virginia. Mr. Young is a real live wire and has already done a good work for the Carolinas-Virginia Association. I sincerely hope that Mr. Young has a rapid recovery and that he will soon again be able to resume his work.

* * *

Here's one that L. Y. McAnney of the L. J. Mueller Furnace Company, Milwaukee, would like to have broadcast. Mr. Rankin is the southern Mueller agent.

Dear Mr. Standard Rankin:

I'se writing you all about one of dem number 256 furnaces. De white folks done used it for thirty years and give dis summer, as you recollect da install another one. Well da give me de old one to live in. Me and my wife had a little misunderstanding the other night, and she throw me out thru the doar. It didn't hurt me but it broke de doar. Please send the door care de white folks, but don't say anything about how de doar got broke, cause dey think I got de knot on my head from shouting down at de colored church. You know us nigers feel our religion.

* * *

I noticed a couple of weeks ago that the Boston Store in Chicago had a big sale on its cigars, chiefly its stogies. Now I occasionally indulge in a smoke of an evening or a quiet Sunday afternoon. Seeing a chance

to get some cigars and at the same time save a little money, I hastened down to the store. Upon my arrival at the store, however, I was informed by the clerk in charge that one buyer from out of town had taken almost the entire lot. That seemed singularly strange to me, but the mystery was solved when I got to Battle Creek to attend the fifteenth annual convention of the Michigan Sheet Metal and Roofing Contractors. Travers Daniel, Jr., was passing out cigars in a singularly liberal fashion. Of course these cigars had the gilt edge name on their bands. I'm not saying how good these cigars were. All those men who attended the convention know already. Those who did not attend can feel sorry for themselves.

* * *

Kindness and Truth

True worth is in being, not seeming;
In doing each day that goes by,
Some little good—not in the dreaming
Of great things to do by and by.
For whatever men say in blindness,
And spite of the fancies of youth,
There's nothing so kingly as kindness,
And nothing so royal as truth.

We get back our mete as we measure;
We can not do wrong and feel right;
Nor can we give pain and gain pleasure,
For justice avenges each slight.
The air for the wing of the sparrow,
The bush for the robin and wren,
But always the path that is narrow
And straight for the children of men.

* * *

Uncle Tim's Philosophy

"There's no use a-talkin'," said Uncle Tim,
"Th' mornin' nappers are wrong within,
They talk about their hard luck
An' think th' world is full o' cheats,
Becus' they lose th' mornin' hours
Snoosin' soft between th' sheets.

"Now th' feller that gits ennywheres
Is th' one that's wide-awake
W'en th' day sends out its mornin' call
An' th' fust bird 'wakes its mate,
An' th' man who shirks th' mornin' nap
W'en he's daid, shall lie in state.

"They's folk that whine an' whine at life
An' say luck's sore at em,
They lie a-bed o' mornin's
'Stid o' hustlin' with a grin;
They's sour an' unsociable, grouchy an'
flat
Along of enving us wise to the mornin'
nap.

"Now th' feller that is on to life
An' wants th' best life gives,
Is th' buck that is a-hustlin' befor' th'
oats is served;
He is bright, alert, observin' with never
a thought o' luck,
An' duckets roll up to him
An' respect o' honest folk."
—Carlotta Bonheur Stearns.

The Editor's Page

Something to Think About to Increase 1926 Sales

SHEET metal contractors all over the country are wondering how they can increase their sale of sheet metal cornices, skylights, roofs, downspouts and gutters, during the present year. They want to make this year better than last.

To do this it is not alone sufficient to say that in order to make more sales, more effort must be exerted. There are two kinds of effort—Blind staggering and intelligently directed. Blind effort costs as much energy as do intelligent, well planned and well directed operations. But the result produced by aimless staggering and groping is never gratifying. The ugly duckling swam in a circle, exhausting its strength, and was finally found frozen to death not far from where it started.

In order to effect the best possible ultimate success of any venture, the preliminary work must be intelligently planned. The brambles and obstructing timber must be cleared from the patch to be traversed.

Among some of the most prominent of these brambles, adverse public opinion and adverse local legislation perhaps have the most thorns. There is nothing so deadly to business as a public opinion which views the products of an industry with contempt or disrespect. Yet one of most powerful evils which the sheet metal contractor has to fight today is the insidious propaganda circulated by local politicians who have a great deal to say about what ordinances are passed and what these ordinances shall contain.

It requires considerable faith on the part of the sheet metal contractor faced with such a situation to believe there is a Santa Claus. But he should take hope in the knowledge that men in other industries have had similar situations to meet. It can be done if gone about properly.

One of the most effective ways of enlisting the aid of public sentiment in your cause is to bring to their attention through the medium of a friendly newspaper the fact that certain local ordinances are deleterious to the welfare of the whole people, because it is keeping them from enjoying the benefits now denied them by the exclusion of the use of certain building materials. For instance, the fact could be played up that where local ordinances do not permit the erection of sheet metal garages the people forced to pay exorbitant prices for places in which to store their cars. As far as safety is concerned sheet metal is no more inflammable than brick or stone, and to effect a more extensive use of sheet metal for purposes of building garages is merely a matter of pounding that simple fact home. It will take time and money, but who ever made any money without first spending time and money?

The exclusion of metal lath and metal ceilings are other instances of how local ordinances work to the

detriment of the public as well as the sheet metal contractor. If the sheet metal contractor has a product superior in every way to the lumberman, why should the public be denied the right of the increased protection offered by the new product, why should the public not have the satisfaction of enjoying the added protection at a decreased cost. The public pays enough now to keep "phony" ordinances on its statute books.

Here's something to think about when mapping out a campaign for greater sales in 1926.

Importance of Discounting Bills When Due

WHAT is gained by the prompt payment of obligations? Many sheet metal contractors and warm air furnace installers still follow the old policy of delaying payment of legitimate just debts as long as it is possible to do so.

Such practices are odious and repellent to the good business man. He knows that by so doing he is only adding to the cost of doing business. Such practices are expensive to all concerned. In the first place any discounts offered are lost irretrievably. These amount to five and even ten per cent of the bill. That means five or ten per cent taken out of the final profit, because, of course, your overhead and running expense is the same whether you pay on time or not.

The second fault about not paying on time is that you acquire a reputation as a "slow pay," consequently your credit suffers by just that much. If there is one thing which a man in business needs more almost than anything else it is a good credit rating. Such can only be acquired by certain definite acts.

Perhaps the greatest injury of all that a man does by neglecting to pay when due is the injury he does himself. The formation of good habit is important in the conduct of everyday life. The neglect to pay when due is the beginning of the formation of a habit which is bound to prove to the detriment of efficient conduct of business. Bad habits in business are as detrimental to the success of that business as are bad habits in the conduct of a private life. The transgression of the laws of good business practice are as fraught with dangers as the transgression of the laws of life are detrimental to the individual's health. No one can escape. In either case the mills of the gods grind slowly, but they grind exceedingly small.

There is little to be gained by a neglect to pay bills when due. It not only costs the individual money, but it costs every one along the line money, from the manufacturer down.

The business fabric of today is largely built upon credit. Therefore, where the individual takes advantage of his position and fails to meet his obligations when due he undermines the entire credit structure.

Retailing Complete Furnace Installation from the Basement Up

Furnace Manufacturer Outlines the Installer's Troubles in His Own Language

By R. B. STRONG, Homer Furnace Company

A FEW months ago I happened to be in company with some of the officers of the Michigan Sheet Metal and Roofing Association when the subject of this year's program came up for discussion. After the committee mapped out the program in a general way I was asked if I had any suggestions for any part of the program which would enlighten our members.

This, gentlemen, gave me an opportunity to let loose something which has been burning within me ever since I have been connected with your association. In reply to an invitation to voice my views, I stated that I thought it would be mighty fine if we could secure a speaker who would talk to our members in the language of the shop. I stated that we have been having too many talks from scientific men who have talked in terms of B.t.u.'s heat waves, atmospheric pressure, etc., with the result that practically the entire talk has "gone over the ordinary sheet metal man's head," so to speak.

Our own little secretary, Frank Ederle, then spoke up by saying that, since I knew so damn much as to what should be said, that he would appoint me as said speaker.

I consented to take the job, with the result that I am before you today.

Now, boys, while I am a manufacturer, nevertheless I have hit the dirt, so to speak. I was brought up in a hardware store and my father was one of the "old school tinnings," as they were called those days. In other words, I was born with a soldering iron in my hand. In the early days of our business it was necessary that I follow my father around the country, as he at that

time did all of the selling, and teach our dealers how to install our product, with the result that some of our old ledgers give me a total of something over 700 installations. Please bear in mind that these were not all pipeless furnaces but were a variety of every conceivable installation known to the common installer. I believe Frank Ederle knew this when he sprung this job on me, be-

points it is going to be necessary to start at the top and work down.

The First Furnaces

There have been more furnaces sold and installed in the last 10 years than all the 50 years previous. The first conceived furnace was a "bricked in" cannon ball stove with one opening above with a few jets in the base of the brick work for the admission of basement air. This was followed with furnaces designed for more heat travel and cold air or return, it should be called, was piped to the furnace from outdoors. This system was entirely unsatisfactory on account of an air-bound condition caused by not removing the cold air from the living quarters.

It was, therefore, soon discovered that in order to warrant even distribution of warm air throughout the house, it was necessary to bring about a circulation whereby the so-called cold air was taken from the living rooms back to the furnace, where it was re-heated and re-delivered through the warm air pipes. This system was immediately condemned by physicians and health experts but it was soon found that more than enough outside air was entering at all times around the doors and windows in the well-built house to furnish more than the required oxygen.

Which reminds me of a case some years ago where I was called out of town to figure on a schoolhouse heating job. You, of course, understand the outside air requirements for schoolhouse heating in Michigan. As is the usual case, the director knew more about heating the building than I did and kept throwing up the fresh air cry until I got slightly warm under the collar and I decided to show him up. I had an assistant with me whom I in-



Ros B. Strong,
President-Elect, Travelers' Auxiliary

cause he used to call on us years ago back in Homer when I wore the overalls.

My many trying experiences, together with my later experience in our engineering department, have naturally brought me in close touch with the dealer installer to the extent that you have always been close to my heart and I can assure you that the annual convention of the Sheet Metal Contractors of Michigan is one of the happiest weeks of the year for me, because it puts me shoulder to shoulder with the real he-man who has to know his stuff.

My talk is listed on the program as "Installation from the Basement Up," but in order to bring out my

structed to carefully inspect and measure all cracks and openings around the doors and windows while I laid out the job. To my own complete surprise my assistant discovered that more than twice the required outside air in actual square inches was coming in through the cracks.

Recirculated Warm Air is Proper and Only Heat

To further the proof that recirculated air is absolutely pure and healthy I will ask you to compare any well warm air heated home with a similar home or building heated with radiation. I have noticed this condition especially in the past several weeks when I have been bothered with a lingering cold. Our office is heated with steam and during the day I was miserable with a "stuffed up" condition. Upon my arrival home my head would immediately open up. My home is heated with warm air. About six or seven years ago I purchased a home in which a steam plant was already installed. For economical reasons I installed a pipeless furnace for Spring and Fall use. As the colder weather came on it would be necessary to fire up the steam plant because the pipeless furnace was undersize. Immediately the difference was noted. The atmosphere was stuffy and the entire family was without pep.

I am merely mentioning these cases to emphasize the fact that I believe recirculated warm air is the proper and only heat.

Enter—the Pipeless Furnace!

About this time the pipeless furnace appeared on the market. It was designed for the farmer who previously found it out of the question to install a warm air furnace on account of his vegetable storage. If he did so it was necessary to partition off a section of this basement for a furnace room.

The pipeless furnace could be installed in any basement in one day's time and the small amount of heat which radiated from it in the basement was not detrimental to vegetable storage. The pipeless furnace took the country by storm and hun-

dreds of thousands of them were installed all over the country and threatened to revolutionize the warm air heating industry. Personally I believe (and I think everyone has a right to believe as he wishes) that the pipeless furnace is one of the best heating plants ever discovered if properly installed. Regardless of prejudiced opinion, I believe you will agree with me that it did more to promote warm air heating than any other one thing. People at least learned the principle of warm and cold air. They learned that warm air wanted to rise and cold air wanted to fall. Previous to the coming of the pipeless furnace the installer would insist on running the warm air pipes possibly 20 feet on the level to a register on an outside wall. The pipeless furnace has taught the home owner to insist on short heat pipes with as much rise as possible. Fewer pipes of larger capacity are now used which certainly give more and better satisfaction.

However, the tremendous popularity of the pipeless furnace got a severe knockout in this part of the country about six or seven years ago. At the time of the depression it became necessary for all of the larger manufacturers of pipeless furnaces to discontinue their big advertising campaigns on account of the expense.

The big direct installers got in their work and broadcasted propaganda against the pipeless furnace and the pipeless manufacturer could not fight back. The register and pipe and fittings manufacturers who had felt the coming of the pipeless saw their opportunity to reclaim business and the pipeless died a natural death.

I believe you will be surprised to learn, however, that pipeless furnaces are still sold by the thousands in the East. I wonder if you realize that Sears, Roebuck and Montgomery Ward sell annually about 25,000 pipeless furnaces.

This history of furnaces or warm air heating brings us down to the present day when more than ever is being done to promote good heating through the pipe furnace methods.

Study the Direct Installers' Methods

You installers of warm air furnaces are probably out looking for business every day. In the majority of cases you use price to land the business, while the Holland Furnace Company actually goes out and gets \$100 to \$200 more for the same identical job. We openly condemn the Holland people when in reality they are one of the best friends we have. *They have done more to promote warm air heating than any other one concern. They stir up the buyer and you step in and pick off the cream. They work at it night and day, and if you worked as hard, you would do just as much business but you spend too much time knocking him.*

As a manufacturer making furnaces strictly for the trade (we have no direct sales branches) you would naturally think I would be out with a hammer, but I know they are a successful organization and I have quit knocking and decided to, in turn, steal their ideas and go them a close second if possible.

You Must Win the Confidence of the Buyer

Warm air heating is more mysterious to the ordinary person than electricity, while we ourselves know that warm air heating is simply a case of common sense. Having been in the furnace business all of my business life, I am quite liable to walk into a prospect's home and by old established methods I can generally lay out a job and give a figure in 15 minutes. For this reason I am not a very successful closer. Quite often I take with me one of our old engineers. He invariably lags behind and carefully measures the house and asks the housewife a million foolish questions. He takes hold of windows and attempts to shake them, asks where they have ever been troubled with cold air drafts. He borrows a hatpin and pokes around in the partitions and finally draws a scale plan absolutely to detail, all the time asking questions as to prevailing conditions in the home and at the same time talking about his product. You see, he

wins her confidence and when the old man comes home, she sells him. This salesman invariably sells the jobs and gets a price. He has made the thing look so mysterious that they think he understands his business, while the trouble with me is that I am in too big a hurry and they form the idea that I just don't give a damn.

Our Biggest Fault Is Taking Too Much for Granted

I believe the greatest cry we manufacturers hear from the dealer is price, while in a great many cases price is not the issue, even in hotbeds of competition. I think the trouble with most of us lies in the fact that we don't go into details enough. We have heard the old stereotype stuff so much that we take it for granted that everyone knows it; but, boys, they don't. I don't have much time to fool around talking to their men's wives a whole afternoon, but invariably when I have done it, I always sold the job. Pig iron is pig iron, labor is labor, and every manufacturer must make a fair profit if he expects his banker to welcome him on Monday morning. The same thing applies to your business. The furnace costs you so much. Sheet metal is sheet metal and labor is labor, and if you can't transfer them at a profit you can't exist. You certainly have noticed that the man who did not hold to this practice went broke the other day and didn't get here to the convention.

A Few Pointers on Furnace Installation

We are now getting around toward installation on which I was supposed to talk and the subject and work that I love. However, in inspecting installation in different parts of the country, I am surprised to note the installation methods carried on by some installers. For some reason unexplainable I find that the older the man in experience, the poorer his work.

There are a few fundamental principles in furnace installation which must be adhered to.

The furnace must be large enough

in the first place; you must have elevation to your warm air leads and you must absolutely return as much cold air as you deliver. I sometimes wonder if you boys really understand how to figure delivery and return. Just for example, let's take a job delivering three 10's and two 12's. Now let's figure out what we are delivering in square inches. Three 10s equal 234 and two 12's equal 226 or a total of 460. You can now see that we naturally need the equal amount in return air which would require one 16 and one 18.

Some installers are very careless about conducting the return air to the furnace. In the first place, to guarantee good circulation, no pipe over 12 inches in diameter should be peoned into the casing. I have seen many jobs where an 18-inch pipe was actually peoned into the casing. The results are always disastrous in that heat from the firepot reflects back up the pipe, thereby checking the flow of cold air, etc. Cold air travels on the level only half as fast as it will fall, therefore ample capacity should be allowed when sealing joist spaces.

I was once called on a case which was giving trouble and noticed that the warm air and cold air were well balanced. One return was from the front hall while the other (there were two) was taken from the dining room which was in the rear of the house. We placed a newspaper over the cold air grill in the dining room and then opened and closed the front door with the result that the newspaper fluttered considerably. On windy days the air was passing down one pipe and right up the other. We put a partition between the two cold air boots which would immediately deflect the air upward where it belonged. Cold air should be entered not too close to the front.

However, more trouble seems to be experienced with the delivery of warm air and I should think it would. Why, some installers insist on running a small pipe on the level for 20 feet and expect it to work is more than I know. In most cases this small pipe is generally beside a

large one which robs it. And, by the way, I very seldom recommend a large pipe. In modern homes today the living room is large and extends clear across the front of the house and often necessitates a 14-inch pipe. I always recommend two 10-in. pipes—better distribution and no robbing.

Coldwater for Summer Outing.

Abram Cox Company Has Been in Business Since 1847

As reported in the February 27th issue of AMERICAN ARTISAN, the name of the Abram Cox Stove Company had been changed to Abram Cox Company, this change having become effective February 15th.

This firm is one of America's oldest concerns engaged in the manufacturing of heating and cooking appliances.

It was organized in 1847 by Abram Cox. In 1848, Joseph Cox joined his brother and formed the partnership of A. and J. Cox. In 1864, however, the name was changed to Cox, Whiteman & Cox, when Whiteman joined the firm. This name was used until 1881, when both Joseph Cox and Whiteman died. Then it became known as the Abram Cox Stove Company, which name it bore until February 15th of this year, when it was decided that the word "Stove" be omitted.

In addition to manufacturing coal tank heaters, gas water heaters, and coal and gas ranges, Abram Cox Company has been manufacturing furnaces for over 50 years, and in 1888 it started making boilers. It is estimated that in Philadelphia and suburban districts alone, at least 300,000 homes are equipped with some heating or cooking appliance made by this firm. Its trade names are "Novelty" and "Fortune."

The general offices of the Abram Cox Company are at American and Dauphin Streets, Philadelphia. It has branch offices in New York and Chicago, and its foundry, which was recently greatly enlarged, is located in Lansdale, near Philadelphia.

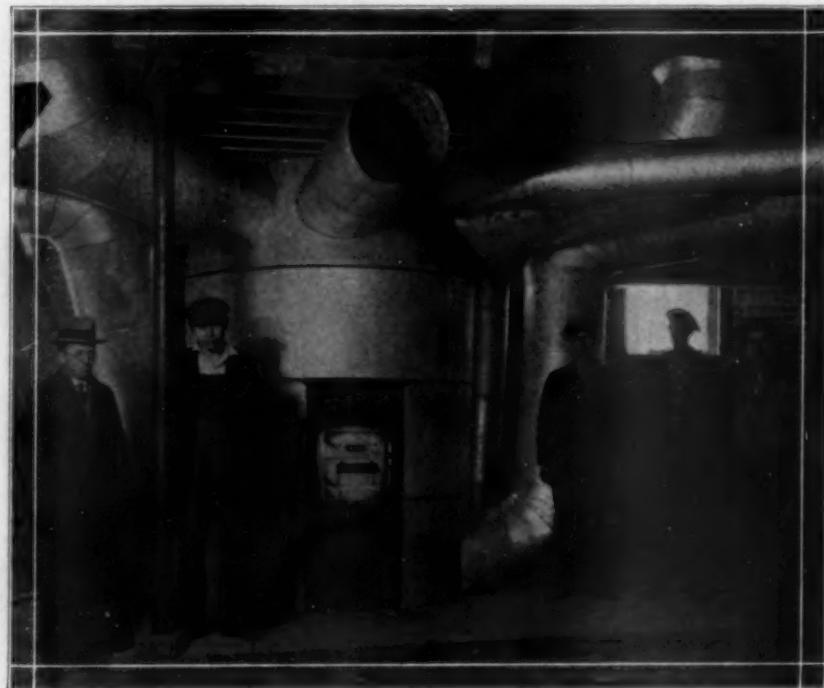
Feminine Sheet Metal Contractor Proves Ability to Complete Unusual Job

*Roberts Sheet Metal Shop, Gary,
Puts in Big Church Warm Air Job*

A SHEET metal contracting and warm air furnace installation business that is being successfully run by a woman is the extreme exception in the United States. There are women running restaurants, ho-

one of the furnaces which the Roberts Sheet Metal Shop installed therein.

This job required two 35-inch firepot furnaces—these are the Torrid Zone make, made by the Lennox



Showing Furnace in Basement and Men Who Installed It

tels, brokerage houses, clubs, associations, farms and retail establishments of almost every type—and quite frequent. But the instances where a woman has had the courage and business acumen to operate successfully a sheet metal contracting business, employing half a dozen or more men, are exceedingly rare.

One such instance found is that of the Roberts Sheet Metal Shop, Gary, Indiana. This shop is now being operated by Mrs. Roberts, widow of founder and former proprietor. This shop is not only doing all the regular work, but is going after the unusual jobs as well.

The accompanying illustration shows the basement of the Glen Park Christian Church, Gary, and

Furnace Company, Marshalltown, Iowa.

Some idea of the unusualness of the job can be gained from a few dimensions. These furnaces measure 72 inches from the floor to the top of the radiator. The casings are 72 inches in diameter, while the total height to the bonnet top is 106 inches—an extraordinary large size.

The basement ceiling is 10 feet high. The church measurements are 60 by 86 feet and the ceilings in the baptistry are 24 feet from the floor.

So efficient and loyal are the sheet metal men employed by Mrs. Roberts that the firm makes much of the galvanized iron furnace pipe which it uses.

The baseboard and floor registers to be installed on this job will be of the Hart & Cooley make, according to Joseph Goldberg, of Excelsior Steel Furnace Company, who handled the order.

Mrs. Roberts employs Glen Hawthorne as head salesman. Mr. Hawthorne is an energetic and progressive member of the sheet metal fraternity who takes much of the sales responsibility from Mrs. Roberts' shoulders.

Another well liked and industrious member of this unique organization is Charles Rood. Mr. Rood is foreman of the shop and has his finger upon the pulse of all activities which come under his jurisdiction in that capacity. In addition to the two men named, there are four others who are employed the year round.

Thus we see a progressive and rapidly growing sheet metal business—suddenly found staggering and threatening to fall because of the death of its logical head—stabilized, brought back to equilibrium and started anew along an even broader road of achievement than formerly—all this by the hand and mind of a woman who has the courage of her own convictions and a desire to "carry on" the good work started by her husband but not completed because an untimely death prevented him from doing so.

That AMERICAN ARTISAN Should be Issued More Often, Is Subscriber's Only Complaint

Mr. Brabazon has only one complaint to make against AMERICAN ARTISAN, and we are happy to publish it here:

"The only complaint that I have against AMERICAN ARTISAN AND HARDWARE RECORD is that we find it so instructive and it contains so many good news and ideas that it should come twice a week instead of once, and when our number is delayed a day or two in the mails we surely miss it."

"Respectfully yours,
W. H. BRABAZON."

Some Facts You Ought to Know About Residence Insulation

It Is One Thing to Generate Heat and Another to Conserve It After Generated

THE following article by H. B. Gates on house insulation and its relation to heating is quoted from the December issue of *Heating and Ventilating Magazine*:

"The increasing use of insulation in the walls and roofs of American homes indicates a growing appreciation that it is one thing to generate heat for the home, but another to use that heat with any degree of economy. Heating engineers and architects are becoming converts to the idea, and demonstration houses

sionally houses have been built, particularly in far northern climates, in which some really effective insulation has been used, but these were exceptions. Usually even the better class of houses have had no provision for reducing heat transmission other than the structural material used, or at most, a layer of paper or "air spaces." The paper, of course, served no other purpose than as a windstop, being entirely too thin to have any real insulating value. Air spaces cannot

accordingly. If less heat is lost, less need be supplied, and less radiation will be required. The careful estimator should, therefore, be very fully informed as to just what effect insulation does have when added to walls and roofs of the various types of construction. Judging by the rapidity with which the principle of insulation is being accepted by architects, contractors and home builders, heating contractors are going to be called upon to base their estimates on heat loss factors greatly different from those heretofore generally accepted.

"For example, let us take a solid brick wall, 8 inches thick, with furring strips, lath and plaster. The transmission per square foot per degree difference in tempera-



Showing Actual Installation of Insulating Materials

erected in various cities are serving as irrefutable object lessons in the economy of insulation.

"Since wall and roof losses are an important factor in determining the amount of radiation, it is obvious that any material reduction of these losses must be reflected in the calculations, and affect the size of the plant that will be required. Hence, the relation between these two subjects, heating and insulation, is a very close one and well worth the serious attention of all who design and install domestic heating systems.

"Until recently no serious effort, generally speaking, has been made to correct the heavy heat losses through house construction. Occa-

be built with wood or masonry small and tight enough to be of any real worth as insulation. As a result, the heat losses through such construction have been very high, and a considerable part of the radiation figured for a house is required for the purpose of supplying the amount of heat necessary to offset this leakage.

Insulated Construction Requires New Heat Loss Coefficients.

"Now that conditions are changing and houses are being built with really adequate insulation in exterior walls and roof, or top-floor ceiling, the heating estimator will almost certainly be under the necessity of altering his calculations

ture, per hour is 0.21 B.t.u. An 8-inch brick wall without furring strips and lath, insulated with 1½ inches of corkboard and plastered, transmits 0.10 B.t.u., a reduction of little more than 52 per cent. A wall of 7/16-inch clapboards, ¾-inch sheathing, studding, lath and plaster, transmits, on the same basis, 0.23 B.t.u. Omitting the lath and adding 1½ inches of corkboard, the heat transmission is reduced to 0.11 B.t.u., or about 52 per cent. The transmission through a roof of shingles, sheathing or T. & G. boards, and rafters is 0.35 B.t.u.; with the addition of 1½ inches corkboard plastered, 0.13 B.t.u., or 63 per cent.

"Obviously such reductions as

these in the amount of heat leakage must be reflected in the results of any heating estimate that is based on calculation and not on mere rule-of-thumb methods of arriving at capacities required.

**Insulated House Invariably
Pleases Occupant.**

"There are two aspects of house insulation of immediate concern to the heating contractor:

"The greatly increased heat retention of the insulated construction enables the plant to operate much more efficiently. It not only uses less fuel, but it heats the house more uniformly. There is no complaint about rooms that are 'hard to heat'; the north side is just as warm as the south side, upstairs is as comfortable as the lower floor. The closed portion of the house stays warmer overnight and cold bedrooms warm up quickly when the heat is turned on in the morning. The natural reaction of the occupant to such results is the conviction that he has a mighty good plant, and the heating contractor gets the credit for a first-class job.

"The insulated house is so much more easily heated that the contractor can and does figure a smaller plant than he would otherwise. At first glance this might seem to be a disadvantage in that the unit of sale would be smaller. But such a view is shortsighted and entirely neglects the prestige and good will that accrue to the contractor who is thus enabled to pass on to his client a considerable saving in cost. Every business is and must be founded upon the good will of its customers. The heating engineer who can give a better service and at the same time save his client money soon finds himself outside the zone of cut-throat competition. Business comes to him easily through the endorsement of satisfied customers.

"While it is true that the heating contractor or engineer seldom, if ever, has anything to do directly with specifying the construction, the two are so interrelated that the man who pretends to keep himself and his business up to date cannot afford to pass the development by

as of no concern to him. It does concern him very much indeed, and affects his business to as great an extent as would some important improvement in heating apparatus.

"It is certainly to the advantage of the heating contractor to install his equipment under conditions that are most favorable to its efficient operation—low first cost, low fuel cost, and dependable, uniform heat-

ing. Hence, the entire heating industry is vitally interested in the development of house insulation and will be greatly benefited by informing itself fully on the details of materials used and results accomplished. The corkboard for which heat loss coefficients are given above, is that made by the Armstrong Cork and Insulation Company, Pittsburgh."

Rudy Shipping Furnaces to Far Off Johannesburg, South Africa

Illustration Shows Furnaces Properly Crated for Their Long Trip to Other Side of the World

AT first thought one would consider a warm air furnace as hardly necessary in South Africa, but wonders will never cease and the Rudy Furnace Company is selling furnaces down there in car load lots. It is certainly gratifying to know that the cannibals are becoming civilized, and that the warm air furnace is responsible for the civilization.

The Rudy Furnace Company has been shipping off and on for the past three years, but only after giving the furnace a thorough tryout have they gone into business in real earnest.

The crating of these furnaces is a large and expensive factor in their production. All parts are wrapped in oil paper in order that salt air will not attack the castings. They



Showing a Shipment of Rudy Furnaces All Ready for Their Long Journey Half Way Around the World.

The Rudy Furnace Company does business thru New York agents of London concerns which finally land the furnaces in the hands of large dealers in South Africa.

Warm air furnaces are new in this field and from all indications the volume is going to be adequate to warrant careful attention to the territory's requirements. Their requirements run mostly to pipeless furnaces.

must be securely packed and all customs requirements met with. Incidentally the Rudy folks have never had a reported breakage or shortage in foreign shipments to date.

If you know of a warm air furnace installation that shows how warm air can be used to heat buildings in unusual circumstances, send us the name of the dealer who put in it. We want to get such material.

The Boys of the Old Guard Are Looking Forward to Their Annual Gathering

Secretary Boyd Has Issued His Call to Arms for May 5th in the Atlanta-Biltmore Hotel, Atlanta, Georgia

One of the features—in fact, the real outstanding feature—of the Southern Hardware Jobbers' Convention, is the meeting of the Old Guard Southern Hardware Salesmen's Association.

The Old Guard Southern Hardware Salesmen's Association is composed of one hundred Southern gentlemen who have traveled a minimum of fifteen years in five or more of the Southern or Southwestern states.

The membership is limited and it is the goal of the Southern salesmen to become one of the hundred true and tried men who are affectionately known as the Old Guard.

As usual, the annual meeting will be held on the second day of the Southern Hardware Jobbers' Convention, which will be in Atlanta, Georgia, at the Atlanta-Biltmore Hotel on May 5th.

From our good friend, R. P. Boyd, Secretary of the Old Guard, comes the following letter, which has been mailed to members:

"The 18th Annual Convention of the Old Guard will be held at the Biltmore Hotel, Atlanta, Georgia, May 5th. Every member is urgently requested to attend.

"With deep regret we report the long illness of Arthur S. Jones and we hope he is improving and will soon be restored to health. His genial personality makes everybody love Arthur Jones.

"Arthur Langston, too, has been quite sick and all rejoice in his restoration to health and are pleased to know that he is again on the road, mingling as of yore with his many friends.

"You all doubtless received the beautiful folio gotten out by First Vice President F. Herbert Smith, and sent to the Old Guard and to our customers, members of the

Southern Hardware Jobbers' Association, and to the Southern Supply and Machinery Dealers' Association. This edition is a real work of art and reflects great credit upon Vice President Smith and the Association honored. We have heard many compliments upon it, both from our members and our jobbing friends.

"Through President Sisson we have received a most cordial invitation from Mr. Alvin M. Smith of Richmond, Virginia, Secretary-Treasurer of the Southern Supply and Machinery Dealers' Association, to attend their Convention, which meets in St. Louis, Missouri, Statler Hotel, May 17th. Mr. Smith asks for a closer affiliation between the two Associations. We greatly appreciate this cordial and friendly spirit and trust many of you may avail yourself of this opportunity to attend and to share in the appreciation of the courtesy.

"Through Mr. Clyde L. King we are in receipt of the following invitation from the Atlanta members of the Old Guard:

"The undersigned Atlanta members extend to you a cordial invitation to be their guests at a dinner party to be given at the Capital City Club on Monday, May 3rd, at 7 P. M. Every member of the Old Guard is earnestly requested to be present. We want you because we love you and are anxious to have you as our guests in Atlanta at this time.

'Signed: A. H. DEVENEY,
J. H. HOLCOMBE,
H. A. DEAN,
CHAS. P. KING,
ROBERT E. VANCE,
CLYDE L. KING,
THOS. E. PARRELL.'

"Please send your acceptances without delay to Mr. Clyde L. King, 1200 Marietta Street, Atlanta, Georgia, in order that they may

know how many to expect and provide for. This is urgent.

"We are pleased to report the election of Robert Sory Bailey of Hare, Bailey & Company, Nashville, Tennessee, who has qualified and we welcome him to membership. He is well and favorably known to the members and to the hardware trade all over the South.

Yours very truly,

"R. P. Boyd Sec'y-Treas."

Subscriber Wants to Know if He Must Remove Flues Before Lining Pumice Dryer With Copper

To AMERICAN ARTISAN:

I am figuring on a job of lining a pumice dryer with heavy copper, 1/16 inch in thickness. I would like to know whether or not same can be lined without taking the flues out of the dryer and would like to hear from some one that has had experience on this kind of work.

The dryer is 6 by 24 feet and I would like to know what size sheet would be most handy to use.

Awaiting your reply, I am

Yours respectfully,

J. O. HUBELI.

Carrollton Hardware Now Known as Carrollton Sheet Metal Works

The Carrollton Hardware Company has moved to their new location over Rivley's garage on West Washington Street, Carrollton, Missouri. Hereafter the name of this firm will be The Carrollton Sheet Metal Works.

One member of this firm started a little hardware and sheet metal shop on Virginia Street a few years ago and by giving the people good service and good materials, business increased and it was found necessary to move into larger quarters at Virginia and Washington Streets, then to 12 South Main Street.

The sheet metal work continued to increase and the firm concluded to discontinue the hardware store and seek larger and more suitable building where they could give the sheet metal work their full attention and where in the course of time



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you can
buy*



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SHEET STEEL

with complete assurance of uniform quality

THE Master Brand appearing on Sheet Steel certifies that the material so stamped has been made to the MASTER BRAND quality standards.

The Master Brand has been adopted by the Sheet Steel Trade Extension Committee after two years' study of a means to insure consistent quality. It assures to the public and to the fabricator of Sheet Steel products, dependable quality and service; it protects the manufacturer who provides a product having a recognized definite quality.

The Master Brand is your evidence that the Sheet Steel you buy is of this standard quality. The Brand can be applied only by mills who have been licensed to use it and whose product is subject to regular inspection. It represents the quality standard of the Sheet Steel Trade Extension Committee . . . and this Committee assures you the standard will be maintained.

Dominating advertising through national, architectural and building trade magazines will establish the significance and value of the Master Brand with distributors, fabricators and users of Sheet Steel and Sheet Steel products.

The galvanized coating on Master Brand sheets is so heavy that they should not be subjected to extreme forming operations unless special measures are taken to prevent damage to this coating.

In every branch of production and commerce, in the automotive field, in the electrical industry, in railroad service, on the farms of America, in office, factory and home—wherever Sheet Steel is used—every buyer will know that the Master Brand stands for economical and lasting service.

Existing markets will be increased, new markets will be established. The progress will be built on the solid foundation of that economy and value which follows the use of quality.

SHEET STEEL™
TRADE EXTENSION COMMITTEE
OLIVER BUILDING
PITTSBURGH PENNSYLVANIA

When writing mention AMERICAN ARTISAN—Thank you!

they hope to work into some manufacturing business.

However, for the present the usual line of tin and furnace work and guttering, etc., is the work which the Carrollton Sheet Metal Work specializes in.

Express Companies Plan to Levy Charges on Shipments Held for Delivery.

Owing to the increasing amount of refused and unclaimed goods left on their hands, the express companies propose to institute a system of rules and charges for storage whenever a shipment tendered for delivery is refused by the consignee.

The American Railway Express Company and the Southeastern Express Companies have submitted a plan to the Interstate Commerce Commission to levy a charge of ten cents for the first day, five cents for each of the next eight days with a maximum of fifty cents per month for shipments weighing 100 pounds or less, these charges to become effective after the allowed three days "free time."

After the first month, a flat charge of fifty cents per month or any fraction thereof will be assessed on shipments of 100 pounds or less. On shipments over 100 pounds, the rates will be proportionately higher.

The new system will become effective on or about May 1, 1926.

C. H. Price Sheet Metal Works at Texarkana, Texas, Is Live Wire Firm

C. H. Price Sheet Metal Works at 208 Walnut Street, Texarkana, is one of the most efficient concerns in that section. Its services include sheet metal work of all kinds and roofing.

The proprietor, C. H. Price, is considered an authority on sheet metal work and there is no problem too difficult in sheet metal or roofing line that this concern will not do their very best to solve and give every detail the most painstaking care. Honest and straightforward business policies, together with a

complete and up-to-date stock on hand and excellent work built up for this firm an envied reputation in their field.



California Retail Hardware and Implement Association, Hotel Whitcomb, San Francisco, March 16, 17 and 18, 1926. Le Roy Smith, Secretary, 112 Market Street, San Francisco.

Iowa Sheet Metal Contractors' Convention and Short Course, Iowa State College, Ames, Iowa, March 22, 23 and 24, 1926. Wm. H. Thomson, Secretary, Box 513, Mason City.

New Jersey Sheet Metal Contractors' Association, Robert Treat Hotel, Newark, March 23 and 24, 1926. W. G. Shrack, Secretary, 118 North Fourth Street, Camden.

Missouri Sheet Metal Contractors' Association, Columbia Hotel, Springfield, Missouri, April 5 and 6, 1926. B. Kolbenschlag, Secretary, 3618 North Grand Boulevard, St. Louis; H. R. Naber, Chairman of the Convention Committee, 311 Boonville Avenue, Springfield.

Illinois Sheet Metal Contractors' Association, Hotel Jefferson, Peoria, April 7 and 8, 1926. R. J. Jobst, Secretary, Peoria.

New York State Sheet Metal Contractors' Association, Elmira, New York, April 14 and 15, 1926. John J. Yager, Secretary, 817 Sycamore Street, Buffalo.

National Warm Air Heating & Ventilating Association, Annual Convention, St. Louis, Missouri, April 14 and 15. Allen W. Williams, Secretary, 52 West Gay Street, Columbus, Ohio.

Pennsylvania Sheet Metal Contractors' Association, Hotel Lycoming, Williamsport, April 14, 15 and 16, 1926. W. F. Angermyer, Secretary, 7253-55 Franks-town Avenue, Pittsburgh.

Texas Sheet Metal Contractors' Association, Dallas, April 22 and 23, 1926. H. Stanyer, Secretary-Treasurer, 2422 Alamo Street, Dallas.

Southern Hardware Jobbers Association, Atlanta-Biltmore Hotel, Atlanta, Georgia, May 4, 5, 6 and 7, 1925. John Donnan, Secretary-Treasurer, 821 American National Bank Building, Richmond, Virginia.

Southern Hardware Jobbers' Association, Atlanta Biltmore Hotel, Atlanta, Georgia, May 4, 5, 6, 7, 1926. John Donnan, Secretary - Treasurer, Richmond, Virginia.

American Hardware Manufacturers' Association, Atlanta Biltmore Hotel, Atlanta, Georgia, May 4, 5, 6 and 7, 1926. Frederick D. Mitchell, Secretary-Treasurer, 1819 Broadway, New York City.

Southeastern Retail Hardware and Implement Association, (composed of Alabama, Florida, Georgia and Tennessee) Convention and Exhibition, Atlanta, Georgia, May 10, 11 and 12, 1926. Walter Harlan, Secretary, 701 Grand Theatre Building, Atlanta.

Arkansas Retail Hardware Association, Little Rock, Arkansas, May, 1926. L. P. Biggs, Secretary, 815 Southern Trust Building, Little Rock.

National Association of Sheet Metal Contractors, Louisville, Kentucky, May 24 to 28, 1926. Edwin L. Seabrook, Secretary, 608 East Chestnut Street, Philadelphia, Pennsylvania.

Carolinian Hardware Association, Raleigh, North Carolina, June 8 to 10, 1926. A. R. Craig, Secretary, 717-18 Commercial Bank Building, Charlotte, North Carolina.

Mississippi Retail Hardware and Implement Association, Biloxi, June 21, 22 and 23, 1926. Guy Nason, Secretary Starkville.

Retail Hardware Doings

J. S. Pattison Company, hardware, has been incorporated with a capital of \$25,000. Incorporators are: John S. Pattison, Fay S. Pattison and Oscar J. Lundeen.

The hardware store of Welsh and Moore at Fairbury has been damaged by fire.

North Dakota

The Sell Hardware Company, Grafton, is adding a 20 by 120 feet addition to its present plant.

Gil Johnson and E. J. Conklin have purchased the Jarrell Johnson Hardware company at Williston.

Ohio

Napoleon Hardware Company at Defiance has been sold to Glenn C. Speiser, Scott Hoyt and W. A. Kehnast.

Oklahoma

Mason Kinck Hardware Company at Depew has been sold to Ray Utter and Claude Henderson, owners of the Depew Hardware Company.

Lloyd Ford will open a hardware store at Stroud.

A. J. Hiebert has sold his hardware business at Fairview to E. A. Young.

Oregon

Sturgis, Storie and Rogers Hardware Company at Athena has been succeeded by Rogers and Goodman.

South Dakota

Emil Kayer and Fred Brown have purchased the Kimball Hardware Company owned by H. I. Peterson.

Texas

J. R. Boyd has sold his hardware store at Corpus Christi to Oscar Nau.

The Bradshaw Hardware Company at Hillsboro has been sold to E. E. Nickols.

Ayers and Pechacek have opened a hardware store at Abilene.

Wisconsin

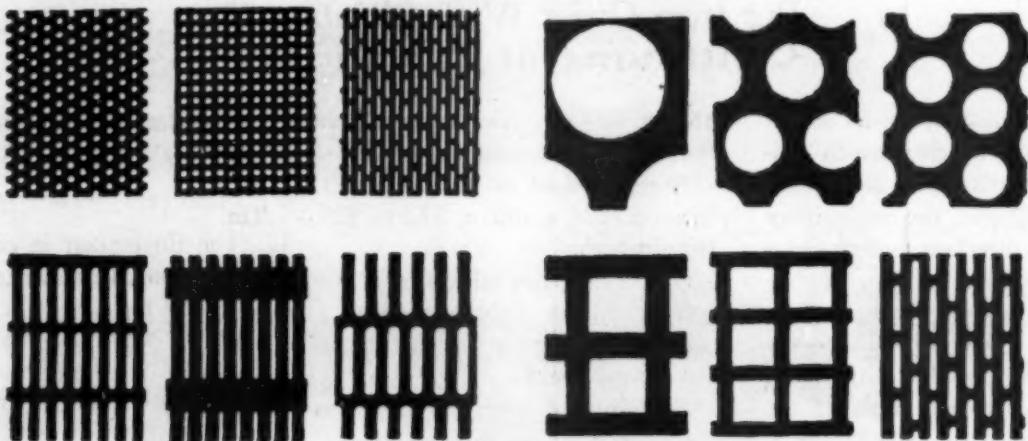
The M. R. Boeckler hardware store at Campbellsport is being remodeled and rearranged to improve the general appearance of the store.

Joe Keuper and Herm Braun have purchased the Frank Vassburg Hardware Store at Genoa City.

A. H. Tubbs has purchased a half interest in the Keiser Hardware Company at Whitewater.

The Zimmerman Hardware Store has opened for business at 396 Atwood Avenue, Madison.

PERFORATED METALS



All Sizes and Shapes of Holes in all Kinds and Thicknesses of Metal.

Punched Metal Grilles, Register Faces, Ventilators, etc.

Guard Material for Machines and Belts. We supply a complete line of Accessories

Screens for Grain, Minerals or anything to be screened.

Perforated Tin and Brass always in stock

THE HARRINGTON & KING PERFORATING CO.

5649 FILLMORE STREET, CHICAGO, ILLINOIS, U. S. A.

New York Office: 114 Liberty Street

INSIST UPON
DIECKMANN
ELBOWS AND SHOES



F. Dieckmann

TRADE MARK

ALL JOBBERS HAVE
THEM OR CAN GET
THEM FOR YOU

The Ferdinand Dieckmann Co. P. O. Station B,
Cincinnati, Ohio

Say you saw it in AMERICAN ARTISAN—Thank you!

Leading Mills Put Out Higher Schedule on Plates, Shapes and Bars

Pig Iron Quiet With Shipments Continuing at Steady Rate

MORE earnest efforts to bolster up prices on steel which generally are unsatisfactory to producers, have followed the preliminary steps in this direction undertaken a week ago.

The Steel corporation mills have brought out a new schedule on the principal heavy products of plates, shapes and bars and most of the leading independents have followed the same course.

The new quotations now in effect reaffirm steel bars and structural shapes at 2.00 cents and 1.90 cents Pittsburgh respectively, restore plates to a 1.90 cent basis and add \$2 per ton in addition, to small lots of all three products.

Steelworks operations have moved up again after their recent fluctuations. Chicago and Pittsburgh are on a 90 per cent basis while the Youngstown district has recovered from 75 to 80 per cent. The Steel corporation continues scheduled around 90 per cent.

Pig Iron.

Continued quietness in the pig iron market is somewhat disconcerting to sellers. Some are finding it duller now than ever before.

One producer sold two carloads of bessemer at \$21, valley, and two carloads of malleable at \$20.50, valley, last week.

Another sold 100 tons of basic at \$20, valley, and one lot of high-silicon foundry at \$21, equivalent to \$20.50 for the base grade. A few other sales of foundry iron at \$20.50, base, are noted.

At Chicago buying of pig iron for second quarter is light. That the melt is not decreasing is evidenced by the fact one seller's daily average shipments in February topped those of January.

It does not appear that the level of \$23, Chicago furnace, for malleable and No. 2 foundry has been

broken, but this price has not been tested for the second quarter.

Northern iron is quoted at \$21, Ironton, and southern, \$22 to \$23, Birmingham.

At Birmingham sales of pig iron booked during February cover a considerable portion of the output for second quarter.

Spot iron of average analysis is not easily obtained.

Quotations are \$22 base, with \$23 for small lots. Some users are negotiating for second quarter.

Copper.

Notwithstanding the lower prices prevailing in Europe large producers here continued to hold electrolytic at 14.25 cents delivered in the Connecticut Valley. Small producers were willing to entertain bids at 14.12½ cents delivered in the Valleys for shipment in the next few months.

Consumers generally, however, displayed no interest, neither of these asking prices proving attractive under present conditions.

Business in refinery positions was dull and the tone of the market was easier with prices about five points lower. Electrolytic is quotable at 13.50 cents f. o. b. refinery for prompt and March, 14.00 cents for April and 14.05 cents for May. For the time being, apparently, speculative interest is dormant.

Casting copper is easier at 13.45 cents f. o. b. refinery.

Lake copper is difficult to sell at 14.25 cents delivered although some producers are still nominally asking slightly higher prices.

Lead.

Prompt lead is quotable at 8.55 cents to 8.60 cents St. Louis basis, and buying is naturally timid.

Producers in the middle west are fairly well sold for March and have no necessity at present to force sales.

American Smelting and Refining Company's price is 8.90 cents New York.

Tin.

The tin market in common with other commodity markets has been unsettled today by the drastic declines in Wall Street and although the price of tin does not show any great decline, buyers have shown great timidity about making commitments.

At the opening of the market sellers were firmly holding March at 64.00 cents, April at 63.50 cents, May at 62.75 cents but this afternoon these prices have been reduced $\frac{1}{4}$ cent per pound and very few sales of any sort have been reported.

Zinc.

Consuming demand is light, and requests are reported from some of the sheet mills to delay March deliveries until later in the month, indicating a well-stocked condition.

Prime Western for prompt and March is nominally 7.35 cents to 7.40 cents St. Louis.

March is reported sold on bids from dealers at 7.35 cents but the bidding is not extensive.

Old Metals.

Wholesale quotations in the Chicago district, which should be considered as nominal, are as follows: Old steel axles, \$17.00 to \$17.50; old iron axles, \$25.50 to \$26.00; steel springs, \$18.50 to \$19.00; No. 1 wrought iron, \$13.75 to \$14.25; No. 1 cast, \$16.00 to \$16.50, all per net tons. Prices for non-ferrous metals are quoted as follows, per pound: Light copper, 9 cents; zinc, 5 cents, and cast aluminum, 19 cents.

Solder.

Chicago warehouse prices on solder are as follows: Warranted 50-50, \$40.50; commercial 45-55, \$38.00, and plumbers', \$35.50, all per 100 pounds.

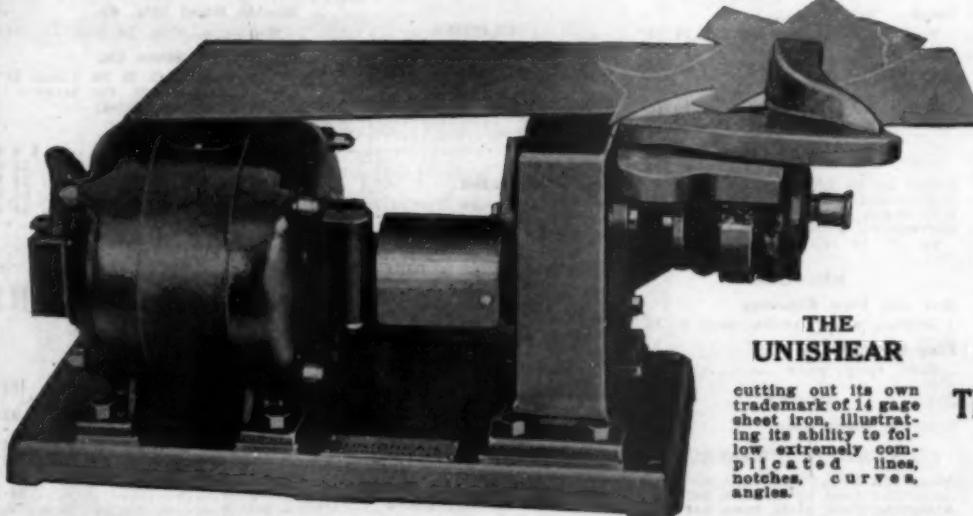
UNISHEAR

Portable and compact, Unishear cuts *any flat stock* quicker, better, cheaper—without burr, without distortion of material. Follows any line exactly, stops accurately at any point.

Needs but one operator even on largest work, straight or irregular.

Operates from lamp socket or power circuit. "General Electric Motor" any Voltage or Cycle Available.

Capacity 14 U. S. gage Sheet Steel.



THE
UNISHEAR

Cutting out its own trademark of 14 gage sheet iron, illustrating its ability to follow extremely complicated lines, notches, curves, angles.

Speed fifteen feet per minute.

Ask us to demonstrate this machine on your work.

Dealers and Salesmen wanted in unassigned territory.

The Unishear Co., Inc.

170 FIFTH AVENUE
NEW YORK, N. Y.



Foot Squaring Shears—Silver City Pattern, made in all practical sizes, capacity No. 18 gauge iron and lighter

WORTH WHILE TOOLS AND MACHINES

FOR over a century the PEXTO organization has striven to give the mechanic the most value for his money.

We receive many testimonials from users, telling us of the long, satisfactory service given by PEXTO Machines and Tools.

Write for Catalog No. 25A.



Machines and Tools for the Sheet Metal Worker - Production Machinery for the Manufacturer of Sheet Metal Products - Power Presses - Dies - Power Shearing Machines.

THE PECK, STOW & WILCOX CO.
SOUTHBURY, CONN., U. S. A.

Chicago Warehouse Metal and Furnace Supply Prices

AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing Western Hardware and Metal prices corrected weekly.

METALS

PIG IRON

Chicago Foundry	\$23.00
Southern Fdy., No. 2	27.01
Lake Superior Charcoal	29.04
Malleable	28.00

FIRST QUALITY BRIGHT TIN PLATES

IC	20x28 112 sheets	\$27.00
IX	20x28	29.20
XXX	20x28 56 sheets	16.20
XXXX	20x28	17.20
XXXXX	20x28	18.40

TERNE PLATES

		Per Box
IC	20x28, 40-lb. 112 sheets	\$25.10
IX	30x28, 40-lb.	28.00
IC	20x28, 30-lb.	21.20
IX	30x28, 30-lb.	24.20
IC	20x28, 25-lb.	20.30
IX	30x28, 25-lb.	23.20
IC	20x28, 20-lb.	17.30
IV	20x28, 20-lb.	20.65
IC	20x28, 15-lb.	16.55
IC	20x28, 12-lb.	15.25
IC	20x28, 8-lb.	13.55

"ARMCO" INGOT IRON PLATES

No. 8 ga. up to and including	
4 in.—100 lbs.	4.55

COKE PLATES

Cokes, 80 lbs., base, 20x28	\$12.75
Cokes, 90 lbs., base, 20x28	12.95
Cokes, 100 lbs., base, 20x28	13.25
Cokes, 107 lbs., base, IC	
20x28	13.60
Cokes, 135 lbs., base, IX	
20x28	15.40
Cokes, 155 lbs., base, 56	
sheets	8.50
Cokes, 175 lbs., base, 56	
sheets	9.70
Cokes, 195 lbs., base, 56	
sheets	10.65

BLUE ANNEALED SHEETS

Base 10 ga....per 100 lbs.	\$2.80
"Armco" 10 ga....per 100 lbs.	4.00

ONE PASS COLD ROLLED BLACK

No. 18-20.....per 100 lbs.	\$3.80
No. 22-24.....per 100 lbs.	3.85
No. 26.....per 100 lbs.	3.90
No. 27.....per 100 lbs.	3.95
No. 28.....per 100 lbs.	4.10
No. 29.....per 100 lbs.	4.10

GALVANIZED

"Armco" 28.....per 100 lbs.	\$6.70
No. 16.....per 100 lbs.	4.50
No. 18-20.....per 100 lbs.	4.65
No. 22-24.....per 100 lbs.	4.80
No. 26.....per 100 lbs.	4.95
No. 27.....per 100 lbs.	5.10
No. 28.....per 100 lbs.	5.25
No. 30.....per 100 lbs.	5.75

BAR SOLDER

Warranted	
50-50.....per 100 lbs.	40.50

Commercial	
45-55.....per 100 lbs.	28.00

PLUMBERS

Plumbers	per 100 lbs.
45-55	45.50

ZINC

In Slabs	8.75
Sheet Zinc	

Cask Lots (600 lbs.)	14.00
Sheet Lots	15.00

BRASS

Sheets, Chicago base.	19 1/4 c
Mill base	19 1/4 c
Tubing, brazed base	27 3/4 c
Wire, base	19 1/4 c
Rods, base	17 3/4 c

COPPER

Sheets, Chicago base.	22 1/4 c
Mill base	22 1/4 c
Tubing, seamless base.	25 1/4 c
Wire No. 9 & 10, B. & S. Ga.	20 1/4 c
Wire No. 11, B. & S. Ga.	20 1/4 c

HARDWARE, SHEET METAL SUPPLIES, WARM AIR FURNACE FITTINGS AND ACCESSORIES.

LEAD

American Pig	\$10.80
Bar	11.80

ASBESTOS

Paper up to 1/16	.60 per lb.
Roll board	.60 per lb.
Mill board 8/32 to 1/4	.60 per lb.
Corrugated Paper (25 sp. ft. to roll)	.60 per roll

BRUSHES

Hot Air Pipe Cleaning	
Bristle, with handle, each	\$9.85

PIPE CLEANING

Steel Only, each	1.25
Front Rank, each	\$1.75

CLINKER TONGS

Front Rank, each	\$1.75
Per doz.	8.40

CHIMNEY TOPS

Iwan's Complete Rev. &	
Vent	.30%
Iwan's Iron Mountain only	.35%

STANDARD

5 to 40%	
5-inch	

CLIPS

Damper	
Acme, with tall pieces,	
per doz.	\$1.25

NON RIVET TALL PIECES

per doz.	35
Front Rank, each	\$1.75

CORNICE BRAKES

Kuehn's Korrekt Kutoffs:	
Galv., plain, round or cor. rd.	
standard gauge	.40%

26 gauge

26 gauge	.30%
Front Rank, each	\$1.75

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"Yankee" Hot Air	
7 inch, each 20c, doz.	\$1.75
8 inch, each 25c, doz.	2.40
9 inch, each 30c, doz.	2.75

SMOKE PIPE

7 inch, each	\$1.75
8 inch, each	2.40
9 inch, each	2.75
10 inch, each 32c, doz.	3.00

REVERSIBLE CHECK

8 inch, each	\$1.50
9 inch, each	1.70

POST HOLE

Iwan's Split Handle	
(Eureka)	
4-ft. Handle...per doz.	\$14.00

7-ft. Handle

7-ft. Handle...per doz.	\$6.00
Iwan's Hercules pattern, per doz.	14.00

Iwan's Hercules pattern

per doz.	14.00
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Galv. Crimpedge, crated..	75 & 5%
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Conductor Pipe Milcor.	
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Std. Gauge	

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AMERICAN ARTISAN AND HARDWARE RECORD

March 6, 1926

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Galvanized before weaving	45-10%	Per Square
Galvanized after weaving	45%	Best grade, slate surf. prep'd 12-22
		Best talc surfaced 12-22
		Medium talc surfaced 12-22
		Light talc surfaced 12-22
		Red Rosin Sheetng. per ton \$7.00

PASTE

Asbestos Dry Paste:	—	SCREWS
200-lb. barrel	\$15.00	Sheet Metal
100-lb. barrel	8.00	No. 7, $\frac{1}{2} \times \frac{1}{4}$, per gross... \$8.52
35-lb. pall	2.25	No. 10, $\frac{1}{4} \times \frac{1}{8}$, per gross... \$8.52
10-lb. bag	1.00	No. 14, $\frac{1}{4} \times \frac{1}{4}$, per gross... \$8.52
5-lb. bag	.55	
2½-lb. cartons	.30	

PIPE

Conductor	—	PIPE
Cor. Rd., Plain Rd or Sq.	—	
"Interlock" Galvanized	—	
Crated and nested (all gauges)	75-3½%	
Crated and not nested (all gauges)	70-15%	
"Milcor" "Titlelock" Uniform	—	

Blue Stove

22 gauge, 5 inch U. C.	11.00	SHREWS, TINNERS' &
nested		MACHINISTS'
22 gauge, 6 inch U. C.	12.00	
nested		Viking \$12.00
22 gauge, 7 inch U. C.	14.00	
nested		Lemmer Throatless 25%
20 gauge, 5 inch U. C.	16.00	No. 18 25%
nested		Shear blades 10%
20 gauge, 6 inch U. C.	16.50	(f. o. b. Marshalltown, Iowa.)
nested		
20 gauge, 7 inch U. C.	18.00	Peerless Steel Squaring
nested		Foot Power

T-Joint Made up

6-inch, 28 ga.	per 100	22-50

Furnace Pipe

Double Wall Pipe and Pipe Fittings	50%	POKERS, STOVE
Single Wall Pipe, Round	50%	Wr't Steel, str't or bent, per doz. \$0.75
Iron Pipe Galvanized	50%	
Galvanized and Black Fittings	50%	
Milcor Galvanized Pipe and Fittings	50%	

Lead

For 100 lbs.	—	SHOES
		Milcor

POKERS, STOVE

Each	\$0.50	POKERS, STOVE

PULLEYS

Furnace Tackles	per doz. \$0.60	PULLEYS
	per gross 6.00	

Furnace Screw (encased)

..... per doz.	75	SQUARES

Ventilating Register

Per gross	9.00	SQUARES
Small, per pair	2.00	
Large, per pair	5.00	

PUTTY

Commercial Putty, 100-lb. kits	33.40	PUTTY

QUADRANTS

Malleable Iron Damper	10%	REDUCERS—Oval Stove Pipe
		Per doz. \$1.10

BASEBOARD REGISTERS

Excelsior	50%	REDUCERS—Oval Stove Pipe

<tbl_r cells="3" ix="2" max

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A It will heat irons as fast as they are cooled. No time wasted.
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Original Siphonage Ventilator
200,000 perfect installations!
The Arex-Auster holds all records for efficiency and performance—conceded as the only scientific substitute for fans, blowers and other apparatus.
Engineering Service Free
Prompt Shipment from Stock
Exclusive Ventilator Mfrs.

AREX
COMPANY
1881 Conway Bldg., Chicago

ECONOMY VENTILATOR

Designed to meet the demand for a ventilator at lowest possible cost, yet capable of solving any ordinary ventilating problem. IT PAYS TO STOCK THEM!

Write for quantity discount.



Inexpensive!

Since 1841

Since 1841 in our manufacture of the Coes Knife-Handle Screw Wrench and from the time the Coes Steel-Handle Screw Wrench was first placed on the market, we have always adhered to a firmly fixed policy.

Our policy is never to use materials or employ methods that would add to the cost of the

COES WRENCH

unless we could positively show where it would add to the quality of the finished product.

We are still making and shipping "The simplest wrenches in the plainest packages," so that every Jobber and Dealer can unhesitatingly offer the most wrench value for the price.

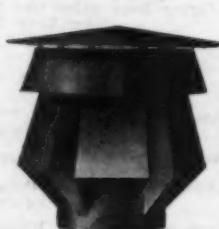
Sizes: 6 to 21 inches. Any Jobber will supply you.

COES WRENCH COMPANY

ESTABLISHED 1841 IN

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J. C. McCarty & Co. 29 Murray Street, New York
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The 12-Cylinder Ventilator
Used in Every State
in the Union.

**SPECIFY AEOLUS
VENTILATORS**

ÆOLUS FOR HOMES

The home should be properly ventilated—few of them are. Here is a sales opportunity often overlooked by the average Sheet Metal Worker, but one which offers a lucrative business to those who take advantage of it.

Æolus-Dickinson Co.

Vent Makers Since 1888
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Phone: Lafayette 1862-1863

BUYERS' DIRECTORY

Pests—Steel Fence.	Ridging.	Sheets—Tin.	Tile Cement—Elastic.
American Steel & Wire Co., Chicago, Ill.	American Rolling Mill Co., Middletown, Ohio	Davis Co., Inc., C. S., Chicago, Ill.	Pecora Paint Co., Philadelphia, Pa.
Punches.	David Lupton's Sons Co., Philadelphia, Pa.	Merchant & Evans Co., Philadelphia, Pa.	Template.
Bertsch & Co., Cambridge City, Ind.	Milwaukee Corrugating Co., Milwaukee, Wis.	National Enameling and Stamping Co., Granite City Steel Works, Granite City, Ill.	Davis Co., Inc., C. S., Chicago, Ill.
Parker-Kalon Corp., New York, N. Y.	Kirk-Latty Mfg. Co., Cleveland, Ohio	Taylor Co., N. & G., Philadelphia, Pa.	Milwaukee Corrugating Co., Milwaukee, Wis.
Peck, Stow & Wilcox Co., Southington, Conn.	Lalance & Grosjean Mfg. Co., Chicago, Ill.	New Jersey Zinc Sales Co., The, New York, N. Y.	National Enameling and Stamping Co., Granite City Steel Works, Granite City, Ill.
Whitney Mfg. Co., W. A., Rockford, Ill.	Rods—Stove.	Shingles and Tiles—Metal.	Oeborn Co., The J. M. & L. A., Cleveland, Ohio
Whitney Metal Tool Co., Rockford, Ill.	Kirk-Latty Mfg. Co., Cleveland, Ohio	Cortright Metal Roofing Co., Philadelphia, Pa.	Taylor Co., N. & G., Philadelphia, Pa.
Punches—Combination Bench and Hand.	Rolls—Forming.	Hopson & Co., W. C., Grand Rapids, Mich.	Tin—Perforated.
Parker-Kalon Corp., New York, N. Y.	Bertsch & Co., Cambridge City, Ind.	Milwaukee Corrugating Co., Milwaukee, Wis.	Harrington & King Perforating Co., Chicago, Ill.
Whitney Metal Tool Co., Rockford, Ill.	Roofing Cement.	Wheeling Corrugating Co., Wheeling, W. Va.	Tools—Tinsmith's.
Whitney Mfg. Co., W. A., Rockford, Ill.	Connors Paint Mfg. Co., Wm., Troy, N. Y.	Shingles—Asphalt.	Bertsch & Co., Cambridge City, Ind.
Punches—Hand.	Pecora Paint Co., Philadelphia, Pa.	Sail Mountain Co., Chicago, Ill.	Chicago Elbow Machine Co., Oak Park, Ill.
Whitney Metal Tool Co., Rockford, Ill.	Roof—Flashing.	Shingles—Zinc.	Dreis & Krump Mfg. Co., Chicago, Ill.
Whitney Mfg. Co., W. A., Rockford, Ill.	Hessler Co., H. E., Syracuse, N. Y.	Milwaukee Corrugating Co., Milwaukee, Wis.	Great Lakes Supply Co., South Chicago, Ill.
Putty—Stove.	Milwaukee Corrugating Co., Milwaukee, Wis.	Heating Systems & Supply Co., Chicago, Ill.	Hopson & Co., W. C., Grand Rapids, Mich.
Connors Paint Mfg. Co., Wm., Troy, N. Y.	Roofing—Iron and Steel.	Diener Mfg. Co., G. W., Marshalltown, Iowa	Marshalltown Mfg. Co., Marshalltown, Iowa
Pecora Paint Co., Philadelphia, Pa.	American Rolling Mill Co., Middletown, Ohio	Snips.	Oeborn Co., The J. M. & L. A., Cleveland, Ohio
Quadrants—Damper.	Cortright Metal Roofing Co., Philadelphia, Pa.	Peck, Stow & Wilcox Co., Southington, Conn.	Peck, Stow & Wilcox Co., Southington, Conn.
Parker-Kalon Corp., New York, N. Y.	Friedley-Voshardt Co., Chicago, Ill.	Solder.	Ryerson & Son, Inc., Joseph T., Chicago, Ill.
Radio—Sets and Supplies.	Inland Steel Co., Chicago, Ill.	Chicago Solder Co., Chicago, Ill.	Unishar Co., The, New York, N. Y.
Williams Hardware Co., Streator, Ill.	Merchant & Evans Co., Philadelphia, Pa.	Double-Duty Elbow Co., Aurora, Ill.	Viking Shear Co., Erie, Pa.
Ranges—Combination Gas & Coal.	Milwaukee Corrugating Co., Milwaukee, Wis.	Milwaukee Corrugating Co., Milwaukee, Wis.	Whitney Mfg. Co., W. A., Rockford, Ill.
Cox Stove Co., Abram, Philadelphia-Chicago	National Enameling and Stamping Co., Granite City Steel Works, Granite City, Ill.	Soldering Furnaces.	Whitney Metal Tool Co., Rockford, Ill.
Quick Meal Stove Co., St. Louis, Mo.	Osborn Co., The J. M. & L. A., Cleveland, Ohio	Borns Co., Otto, Newark, N. J.	Torches.
Thatcher Co., Newark, N. J.	Wheeling Corrugating Co., Wheeling, W. Va.	Burgess Soldering Furnace Co., Columbus, Ohio	Burns Co., Otto, Newark, N. J.
Ranges—Gas.	Roofing—Tin.	Clayton & Lambert Mfg. Co., Detroit, Mich.	Burgess Soldering Furnace Co., Columbus, Ohio
Cox Stove Co., Abram, Philadelphia-Chicago	Taylor Co., N. & G., Philadelphia, Pa.	D'ener Mfg. Co., G. W., Chicago, Ill.	Clayton & Lambert Mfg. Co., Detroit, Mich.
Quick Meal Stove Co., St. Louis, Mo.	Roofing—Zinc.	Double Blast Mfg. Co., North Chicago, Ill.	Diener Mfg. Co., G. W., Chicago, Ill.
Gray & Dudley Co., Nashville, Tenn.	Hart & Cooley Co., New Britain, Conn.	Quick Meal Stove Co., St. Louis, Mo.	Double Blast Mfg. Co., North Chicago, Ill.
Register Shields	Rubbish Burners.	Thermo Gas Furnace Co., Chicago, Ill.	Quick Meal Stove Co., St. Louis, Mo.
Hardware Specialty Co., Fort Wayne, Ind.	Sal—Ammoniac.	Soldering Supplies.	Trade Extension.
Registers—Warm Air.	Specialties Chemicals Co., Highland Park, Ill.	Double-Duty Elbow Co., Aurora, Ill.	Copper & Brass Research Association, New York, N. Y.
American Wood Register Co., Plymouth, Ind.	Schools—Sheet Metal Pattern Drafting.	Special Chemicals Co., Highland Park, Ill.	Sheet Steel Trade Extension Committee, Pittsburgh, Pa.
Chicago Furnace Supply Co., Chicago, Ill.	St. Louis Technical Institute, St. Louis, Mo.	Hanson Mfg. Co., C. W., Chicago, Ill.	Trimmings—Stove.
Eaglesfield Ventilator Co., Indianapolis, Ind.	Schools—Warm Air Heating.	D'ener Mfg. Co., G. W., Chicago, Ill.	Fanner Mfg. Co., Cleveland, Ohio
Excelsior Steel Furnace Co., Chicago, Ill.	Northern Institute, Cleveland, Ohio	Hessler Co., H. E., Syracuse, N. Y.	Ventilators.
Hart & Cooley Co., New Britain, Conn.	Screws—Sheet Metal	Stars—Hard Iron Cleaning.	Arax Company, Chicago, Ill.
Henry Furnace & Fdy. Co., Cleveland, Ohio	Parker-Kalon Corp., New York, N. Y.	Fanner Mfg. Co., Cleveland, Ohio	Aessus Dickinson Co., Chicago, Ill.
Independent Register and Mfg. Co., Cleveland, Ohio	Screens—Perforated Metal.	Stainless.	Berger Bros. Co., Philadelphia, Pa.
Lanneck & Co., W. H., Columbus, Ohio	Harrington & King Perforating Co., Chicago	Friedley-Voshardt Co., Chicago, Ill.	Friedley-Voshardt Co., Chicago, Ill.
Meyer & Bro. Co., F., Peoria, Ill.	Shears—Hand and Power.	Stainless.	Hopson & Co., W. C., Grand Rapids, Mich.
Milwaukee Corrugating Co., Milwaukee, Wis.	Double-Duty Elbow Co., Aurora, Ill.	Friedley-Voshardt Co., Chicago, Ill.	David Lupton's Sons Co., Philadelphia, Pa.
Mueller Furnace Co., S. J., Milwaukee, Wis.	Marshalltown Mfg. Co., Marshalltown, Iowa	Gereck Bros. Mfg. Co., St. Louis, Mo.	Milwaukee Corrugating Co., Milwaukee, Wis.
Robinson Furnace Co., Chicago, Ill.	Peck, Stow & Wilcox Co., Southington, Conn.	Standard Ventilator Co., Chicago, Ill.	Royal Ventilator Co., Philadelphia, Pa.
Rock Island Register Co., Rock Island, Ill.	Ryerson & Son, Inc., Joseph T., Chicago, Ill.	Sturtevant Co., Boston, Mass.	Standard Ventilator Co., Lewisburg, Pa.
Standard Furnace & Supply Co., Omaha, Neb.	Unishar Co., The, New York	Steel Stampings.	Sturtevant Co., Boston, Mass.
Stearns Register Co., Detroit, Mich.	Viking Shear Co., Erie, Pa.	American Tube & Stamping Co., Bridgeport, Conn.	Bagiesfield Ventilator Co., Indianapolis, Ind.
Tuttle & Bailey Mfg. Co., Chicago, Ill.	Sheets—Black and Galvanized.	Stove Pipe Reducers.	Hart & Cooley Co., New Britain, Conn.
Walworth Run Fdy. Co., Cleveland, Ohio	American Rolling Mill Co., Middletown, Ohio	Allred Mfg. Co., Indianapolis, Ind.	Henry Furnace & Fdy. Co., Cleveland, Ohio
Registers—Wood.	Davis Co., Inc., C. S., Chicago, Ill.	Milwaukee Corrugating Co., Milwaukee, Wis.	Independent Register Co., Cleveland, Ohio
American Wood Register Co., Plymouth, Ind.	Inland Steel Co., Chicago, Ill.	Stoves—Camp.	Tuttle & Bailey Mfg. Co., New York
Chicago Furnace Supply Co., Chicago, Ill.	Merchant & Evans Co., Philadelphia, Pa.	Quick Meal Stove Co., St. Louis, Mo.	Windows—Steel.
Eaglesfield Ventilator Co., Indianapolis, Ind.	Milwaukee Corrugating Co., Milwaukee, Wis.	Stoves—Gasoline and Oil.	David Lupton's Sons Co., Philadelphia, Pa.
Regulators—Damper.	National Enameling and Stamping Co., Granite City Steel Works, Granite City, Ill.	Quick Meal Stove Co., St. Louis, Mo.	Wire—Electrical.
Parker-Kalon Corp., New York, N. Y.	Osborn Co., The J. M. & L. A., Cleveland, Ohio	Reps Heater Co., Clyde, Ohio	American Steel & Wire Co., Chicago, Ill.
Repairs—Stove and Furnace.	Ryerson & Son, Inc., Joseph T., Chicago, Ill.	Stoves and Ranges.	Wire Hoops.
Hessler Co., H. E., Syracuse, N. Y.	Taylor Co., N. & G., Philadelphia, Pa.	Cleveland Cooperative Stove Co., Cleveland, Ohio	American Steel & Wire Co., Chicago, Ill.
Northwestern Stove Repair Co., Chicago, Ill.	Wheeling Corrugating Co., Wheeling, W. Va.	Cox Stove Co., Abram, Philadelphia, Pa.	Wire Hoops.
Sheets—Iron.	Sheets—Iron	Gray & Dudley Co., Nashville, Tenn.	American Steel & Wire Co., Chicago, Ill.
American Rolling Mill Co., Middletown, Ohio	American Rolling Mill Co., Middletown, Ohio	Oakland Foundry Co., Belleville, Ill.	Wrenches.
Merchant & Evans Co., Philadelphia, Pa.	Merchant & Evans Co., Philadelphia, Pa.	Peninsular Stove Co., Detroit, Mich.	Coxs Wrench Co., Worcester, Mass.
		Quick Meal Stove Co., St. Louis, Mo.	Zinc.
		Thatcher Co., Newark, N. J.	Merchant & Evans Co., Philadelphia, Pa.
		Tacks, Staples, Spikes.	New Jersey Zinc Co., The, New York, N. Y.
		American Steel & Wire Co., Chicago, Ill.	

Mention AMERICAN ARTISAN in your reply—Thank you!

WANTS AND SALES

For paid yearly subscribers, AMERICAN ARTISAN AND HARDWARE RECORD will insert under this head advertisements of not more than fifty words WITHOUT CHARGE. Employers wishing to secure employees, parties desiring to purchase or sell business, secure partners, or to exchange, etc., will find that these pages offer excellent opportunities to satisfy their wants. Clerks and tinsmiths looking for situations will find it to their advantage to use these columns. Those who respond to these announcements please mention that they "READ THE ADVERTISEMENT IN AMERICAN ARTISAN AND HARDWARE RECORD."

BUSINESS CHANCES

LIGHTNING RODS—Dealers who are selling Lightning Protection will make money by writing us for our latest Factory to Dealer Prices. We employ no salesmen and save you all overhead charges. Our Pure Copper Cable is endorsed by the Mutual Insurance Companies and hundreds of reliable dealers. Write today for samples and prices. L. K. DIDDIE CO., Marshfield, Wis.

For Sale—1 Sundstrand adding machine.. One year old. \$60.00. 1 medium size safe, fireproof, \$45.00. 1 oak filing cabinet, 4 drawers, only \$35.00. American cash register from 1c to \$99.99, buttons for 9 clerks, for \$190.00. 2 show stands for display purposes only \$15.00 each. 1 Chevrolet truck only 1 year old \$450.00. If interested address A-93, care of AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 8-3t

For Sale—Auto radiator and sheet metal business including machines, tools and stock. Old established in city of 35,000 population. First class location in Wisconsin. The only up-to-date radiator shop in city. Doing from \$800 to \$1,000 per month. Reason for selling on account poor health. Address A-88, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 8-3t

For Sale—Or trade for improved farm in South West Missouri or in Northwestern Arkansas. A fully equipped combination sheet metal, plumbing and electrical shop. Established 12 years. Only one in good oil town. Osage County, Oklahoma. 1,500 ft. floor space, good business. 5 room living quarters on rear of lot. Stand inspection. Address F. S. Henderson, Box 276, Avant, Oklahoma. 8-3t

For Sale—Sheet metal and furnace business in eastern Iowa. Old established business that is on a very good sound paying basis. Very good city and territory to draw from. No other real mechanic here. If you are interested in a very good paying business it will pay you to look this up at once. Address B-10, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois.

For Sale—Heating, plumbing and sheet metal business in the town of Carson City, Michigan. Stock and tools invoice about \$1,500. Will sell stock at invoice cost; tools at cost less depreciation in use. A good business. Other business the reason for selling. Address A-92, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 8-3t

For Sale—One 1,000 lbs. capacity Hiller hand elevator, good as new. Everything complete was used in a 30 ft. high building. Make us an offer, also 2 Meyers shelf store ladders, 10 ft. high, with self and top rail. \$8 of each, at your own price. Write G. T. Mueller and Son, Columbus, Missouri.

For Sale—Plumbing, heating, sheet metal and gas supply business. Sixty thousand dollar high school will be built this summer. Owner must sell on account of health. It will pay you to investigate. Address B-9, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 10-3t

BUSINESS CHANCES

For Sale or Rent—Sheet metal and machine shop in central Iowa in city of 18,000 population. Complete set of tools and stock, very good location. Priced right. Owner has other business interests. Address A-97, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 9-3t.

For Sale—Hardware store and tin shop. Excellent location and is a well established business. Will be willing to rent the business to a live wire sheet metal worker on a profit sharing basis. Address B-13, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 10-3t.

For Sale—Stock of hardware tinsmiths' tools and fixtures for about \$3,500. Inhabitants 4000. Good paying business. Best of reasons for selling. Lease 5 years. Address B-4, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 9-3t.

For Sale—Sheet metal shop in good Minnesota town of 1000 population. No competition. Price asked for building lot 25x60, tools and stock, \$1,250—\$2 cash. Balance time at 6%. Address A-96, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 9-3t.

For Rent—On a monthly rental or commission basis. Convenient storage space for warm air furnace accessory. Office room if desired. On trackage. Trucks to depot provided. Address Keith Furnace Co., Des Moines, Iowa. 8-3t

For Sale or Exchange—hardware stock, located in Wisconsin. Doing nice business. On account of sickness must sell at once. Address A-98, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 9-3t.

For Sale—Tin, copper and sheet metal shop. Doing good business. Reason for selling, owner leaving city. Raymond Beher, 436 Rush Street, Chicago, Illinois. 10-3t.

HELP WANTED

Wanted—Sheet metal foreman, experienced in laying out and capable of developing a shop to take care of a growing business. Principal products cornices, ventilators, skylights, marquises, etc. Shipped to all parts of the United States. State nationality, age, married or single, experience, references. Address International Steel and Iron Co., Evansville, Indiana. 8-3t

Wanted—An all around man, one that can do tinning and furnace work, also some plumbing and work in hardware store in southern Wisconsin. State wages in first letter. Can start at once. Address B-11, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 10-3t.

Wanted—A first class tinner, plumber and heating man about 30 years of age. Married. Located in south western Iowa. Must not use liquor and have a first class record. Steady job. Can go to work at once. Address A-90, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 9-3t.

Wanted—A tinner and furnace man April 1st. Steady year around position. When not busy in the shop he can be in store. Wish a man not over 40 years of age. Kindly state salary in first letter, also give references. Address B-5, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 9-3t.

Wanted—First class tinner, sheet metal worker and furnace man. Must be able to take charge of shop. Inside and outside work. A year around position for right man, in Ohio town of 4,500. State age, wages and references. Address A-89, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 8-3t

Wanted—Furnace salesmen, familiar with Michigan, Indiana and Illinois territory. A man with ability to advance, to take charge of department. Please state full qualifications. Address B-1, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 9-3t.

HELP WANTED

Wanted—Hardware clerk in suburb west of Chicago. Must be well acquainted with entire line. Married man preferred. State salary expected and where last employed. Address B-2, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 9-3t.

Wanted—Salesman to sell furnaces direct to home owners, permanent position and big money for men who can deliver the goods. Address B-12, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 10-3t.

Wanted—A first class city salesman or salesmanager. Must be hustler. One familiar with house to house canvassing preferred. Commission. Address B-15, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 10-3t.

Wanted—At once a man who can do some plumbing and general sheet metal work, in a country shop. Wages \$30.00 per week. Address O. L. Doward, Mount Morris, Illinois. 8-3t

Wanted—At once, good all around sheet metal worker and tinner. Knowledge of auto radiator repairing desirable. Steady job for man that can make good. Good town, schools and churches. \$35.00 per week. Address The Ideal Furnace & Tin Shop, Fort Morgan, Colorado. 9-3t.

Wanted—Radiator repair men that are now using acid or flux to write me about our "U No Me" Flux and cleaner combined. This information will be worth money to you. Address Geo. E. Roe, Radiator Repair Shop, Freeport, Illinois. 9-3t.

Wanted—Competent sheet metal worker to take charge of sheet metal department in stove factory making complete line of gas and coal stoves. Address A-94, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 8-3t

Wanted—A tinner who is willing to work the year around in a small town. Must be willing to help in other lines in spare time. Address Desmond & Horn, Mukwonago, Wisconsin. 8-3t

SITUATION WANTED

Situation Wanted — Eleven years in charge of German American concerns shops. Work and men largest general jobbing and heating contracts, is open for position on account of death of proprietor and consolidation of the business. Age 54, bachelor, nonunion. Please state your requirements in full. Address B-6, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 9-3t.

Situation Wanted — Wanted to buy working interest in a combination plumbing and tin shop with some good firm. Am an A-1 plumber, tinner and fitter. Can also do general repairing and furnace work. Please state salary. Address A-91, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 8-3t

Situation Wanted—As salesman or mechanic by a married man with twenty years' experience in plumbing, heating, sheet metal, pump and windmill work. Can furnish best of references. Can start at once. Address B-7, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 9-3t

Situation Wanted — By sheet metal worker, 25 years' experience, cornice, skylights and blow pipe work. Also furnace work. Competent to lay out general sheet metal work and work from drawing. Address B-14, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 10-3t

Situation Wanted — By experienced hardware clerk, tinner and furnace man. Best of references. Can come after March 1st. Address A-95, care of AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 8-3t

Situation Wanted — By experienced sheet metal worker. Married man, 40 years old. Want steady position. Capable of doing lay out work. Address Bob Clark, 107 South Maple, Ames, Iowa. 9-3t.

TINNERS' TOOLS

For Sale—1 hollow mandrel 40 in., \$800; 1 pair rolls 31 in., \$15.00; 1 Groover 20 in., \$12.50; 1 pipe folder, \$15.00; 1 crimper, \$14.00; 1 wiring machine, \$10.00; 1 bench plate and 6 stakes, \$30.00; 1 beading machine, \$20.00; 2 small turning machine, \$12.00; 1 large burr, \$12.50; 5 machine standards, \$1.50 each; 1 No. 1 Whitney punch, \$14.00; 1 No. 10 Torrid Furnace, \$10.00; 1 pair pipe cutting snips, \$2.00; 1 34 in. band saw, \$80.00. All F. O. B. Meade, Kansas. First check gets one or all, 5% off if all taken. Ash Grove Farm, Meade, Kansas. 10-3t.

For Sale—One 30 in. square shear, 1 20 in. groover, 1 double seamer, 1 setting down machine, 1 small burring machine, 1 large burring machine, 1 small swedging machine, 1 slip roller 30 in. Address B-3, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 9-3t.

For Sale—Complete set of tanners' tools and machinery including eight-foot cornice brake. Complete Auto Radiator repairing outfit, also Oxy-Acetylene Welding equipment. Reason for selling must change climate. Address B-16, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 10-3t.

For Sale—One Chicago Steel Brake No. 4, 18 gauge and lighter. This is a new brake and has never been used. Priced \$150.00. Also Queen City Square Shear 30", 18 gauge and lighter, \$75.00. Address Van Tassel Sheet Metal Works, 520 Eagle Street, Niles, Michigan. 8-3t.

For Sale—Tanners' tools used only 1 year, for sale cheap. All Pexto machines and 30 in. used roller; square shear and folder all 30 in. wide. If interested act at once. Address A-99, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 9-3t.

Wanted—Set of used tanners' tools and machines including 8 ft. steel brake. List all tools with what make, stating lowest cash price and what condition tools are in. Address N. W. Christians, 2606 Virginia Street, Sioux City, Iowa. 8-3t.

For Sale—2 1C60 American water boilers, rated at 1,750 feet. \$50.00 each takes them. Also 1 double seamer, new, P. S. & W. No. 644. \$50.00. Address Howard Heating and Plumbing Company, Howard, South Dakota. 8-3t.

I have something that will interest owners of Double Truss Brakes. A postal with your name and address will bring it. Address E. B. Meeks, Box 344, Aurora, Illinois. 9-3t.

For Sale—One Stow's 36-inch groover, 3 size locks in or out and a setting down roller. Twenty-three dollars. Address H. A. Lee, Canton, South Dakota. 9-3t.

For Sale—One full set of tinner's tools, in good shape. Address B-8, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 9-3t.

SPECIAL NOTICES

Special Notices — displayed want ads—are charged at the rate of \$3.00 per inch per insertion.

PATENTS
HUBERT E. PECK
Patent Attorney
Barrister Bldg., WASHINGTON, D. C.

WANTED

ONE CHICAGO CITY SALESMAN AT ONCE. INTERNATIONAL HEATER CO., 1933 WENTWORTH AVENUE, CHICAGO, ILLINOIS.

10-3t

Say you saw it in AMERICAN ARTISAN—Thank you!

SPECIAL NOTICES**FURNACE SALESMAN WANTED**

We can offer a man with successful selling record a most attractive proposition of salary, expenses and bonus. Every cooperation with financing and merchandising. Address Williamson Heater Co., 589 East Illinois Street, Chicago, Illinois. 9-1t

SITUATION WANTED

Young man, 30 years of age, married, desires sales connection with manufacturer of furnaces or sheet metal goods. 12 years experience in the retail selling and installing of warm air systems and sheet metal work. Located at present in large central Illinois city, well acquainted with the trade and have character and initiative to secure business for manufacturer wishing representation in this vicinity. Address L-51, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 8-1t.

SECRETARY WANTED**FOR STATE SHEET METAL TRADE ASSOCIATION**

Must be a live wire with pleasing personality. We want a man who is an organizer—one who is willing to work and who is a good, convincing talker.

In replying give full details as to your experience and qualifications. Tell us just why you feel that you can fill the bill.

Your reply will be held in strictest confidence. Address Sheet Metal Trade Association, care of AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 10-3t

WANTED

First class sheet metal man, now estimator for one of the largest shops on the coast, with a large acquaintance among Los Angeles contractors, is organizing a new company, and wishes to get in touch with several men who understand the sheet metal business and have some capital. Address L-53, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 10-3t

SPECIAL NOTICES**SALESMAN WANTED**

Experienced and successful stove and range salesman. Good proposition for a good man. Address Gray & Dudley Company, Manufacturers of Washington Stoves and Ranges, Nashville, Tennessee.

7-3t

WANTED

Traveling men who have had experience in selling stoves and warm air furnaces in Indiana, eastern parts of New York, Connecticut, Massachusetts, and Vermont, and the eastern parts of Pennsylvania and New Jersey, address L-48, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 6-tf

PROMINENT STOVE MANUFACTURER

of well known trade-mark line is launching national expansion program on most complete, best developed and priced line of Heat Circulators on the market. Line also includes heaters and ranges of all types and fuels. Strong gas line. Your territory may still be open. Straight commission compensation. Big money making opportunity. Want to hear only from big producers with established territories. State in detail territory covered and sales volume. Address L-54, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 10-3t.

SITUATION WANTED

By salesman with 13 years' experience in heating lines. Both furnace and boiler experience. Can do engineering if necessary. 40 years old. Address Box 122, V. P. Station, Des Moines, Iowa. 10-3t

Established 1878
The "CENTENNIAL"
Rain-Water Cut-Off
The strongest, most durable and Cheapest Cut-Off on the market, made of galv. iron or copper to fit corrugated and plain pipe and which can be used without extra pipe or elbows.
For Sale By All Leading Jobbers
Manufactured only by
ALLRED MFG. CO.
Successor to
SULLIVAN-GEIGER CO.
111-42 South Harding Street,
INDIANAPOLIS, IND.



Residence of D. F. Fuquay, Daytona Beach, Fla. ARMCO Ingot Iron was used for all sheet metal construction when this home was built, 11 years ago. Did "the purest iron made" give a good account of itself? Read Mr. Fuquay's interesting letter below.

Home Owner—Architect—Contractor he specifies ARMCO Ingot Iron

"**G**ALVANIZED ARMCO Ingot Iron was used for all sheet metal work on my home, which is located at 413 Fifth Avenue, Daytona Beach. This metal was installed 11 years ago and is today in excellent condition.

The salt air has failed to cause the slightest deterioration."

This letter, signed by Mr. D. F. Fuquay of Daytona Beach, Florida, has a triple significance, inasmuch as Mr. Fuquay was the architect, the contractor—and in this case—the home owner.

Since that time, Mr. Fuquay has designed and built many other attractive residences, in which, needless to state, ARMCO Ingot Iron was used exclusively for all sheet metal work.

Many like instances occur every day. They serve to show that the Purity, Workability, and Rust-resistance of ARMCO Ingot Iron are the reasons why this quality sheet metal is specified by architects, preferred by contractors, and accepted on merit by the buying public everywhere.



The American Rolling Mill Company

Middletown, Ohio

(Export)

The ARMCO International Corporation
Cable Address: - - ARMCO, Middletown

ARMCO
TRADE MARK

INGOT IRON
The Purest Iron Made



John Schueller, Sheet Metal Worker, made 22 of these Humidifying Pans, from 24-gauge Armco Ingots Iron, for one Residence. You, too, could make pans like these in your own Shop. They can be painted or "grain varnished" to harmonize with the floors or with the radiators.

Radiator Humidifying Pans—

*You can make money making them
and other Household Helps from*

**Is Yours a Milcor
ARMCO
Ingot Iron Shop?**



THOUSANDS of high class Sheet Metal Shops are now operating under the ARMCO Ingot Iron SHOP PLAN. Milcor Dealers who enroll receive exceptionally valuable aid in advertising and merchandising. This Plan, plus aggressive cooperation on your part, is certain to produce more business for you. Write for complete details. No charge for enrollment, providing you agree to sell Milcor Products made from ARMCO Ingot Iron wherever you find the opportunity.

THE possibilities for increased use of sheet metal in homes are like an untapped gold mine. Look at the nice sale John Schueller made in Humidifying Pans, alone, for a single residence — 22 Pans, built in spare time, at small cost and fine profit! It was a valuable service to the owner, for it made his home easier to heat, more comfortable and healthful—and is saving him a lot of money in coal bills! So he was glad to pay well for such service.

There are all kinds of opportunities for every sheet metal worker to serve home owners. Go after this business—it is profitable! Just figure out how many homes in your vicinity could be sold special work as suggested here in the column at the right!

Once you establish a reputation for work of this sort, big business can be developed. One Sheet Metal Contractor, for instance, landed a contract for \$42,000 worth of sheet metal work in an 18-family apartment building. Big business! Profitable! Go after it!

Milcor Sheets are soft, pliable, easy to work. You'll be most successful with them in all fabricating operations.

MILWAUKEE CORRUGATING CO., Milwaukee, Wis.
CHICAGO, ILL. KANSAS CITY, MO. LACROSSE, WIS.



Ingot Iron

**Some Other
Household
Suggestions:**

Radiator Shields and Covers; Built-in Refrigerator Cabinets; Clothes Chutes; Metal Lined Ironing Board Cabinets; Metal Lined Dumb-Waiter Shafis; Metal Clothes Chests; Metal Shoe Boxes; Metal Lined Medicine Cabinets; Metal Table Tops; Metal Covered Mixing Boards; Metal Cabinets for Kitchen Accessories; Basement Bench Tops; Special Window "Refrigerators" for use in Winter; Coal Bin Openings to facilitate shoveling; Special Garage equipment; bench tops, oil pans, cabinets and Containers for greasy rags, oily waste, etc., and many other Household Helps which can be made in your own Shop from ARMCO Rust-Resisting Ingot Iron or Milcor Sheet Steel. Notes: For table tops, etc., Milcor Nickel-Zinc Sheets are now available. Write for prices.

MILCOR

PRODUCTS IN ARMCO INGOT IRON

ALL MILCOR PRODUCTS ARE NOW AVAILABLE IN ARMCO RUST-RESISTING INGOT IRON—WRITE FOR PRICES